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Leaflet Regarding Rules of Publication.—CALIFORNIA AND WESTERN MEDICINE has prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this Journal write to its office requesting a copy of this leaflet.

DEPARTMENT INDEX

(Itemized Index of Articles is printed on Front Cover)

EDITORIALS†

GREETINGS TO NEW OFFICERS

Officers Elected at the Annual Session.—At Del Monte, on Monday, May 5, the California Medical Association officially opened its seventieth annual session. Proceedings of the House of Delegates will appear in the June issue of CALIFORNIA AND WESTERN MEDICINE; and in the months to come many of the papers presented before the twelve scientific sections will be given place in the OFFICIAL JOURNAL.

These are the newly elected officers:

PRESIDENT-ELECT: William R. Molony, Sr., *Los Angeles.*

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VICE-SPEAKER: E. Vincent Askey, *Los Angeles.*

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Elbridge J. Best, *San Francisco.*
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Harry H. Wilson, *Los Angeles.*
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ALTERNATES TO AMERICAN MEDICAL ASSOCIATION:

Robert S. Stone, *San Francisco.*
Bon O. Adams, *Riverside.*
Roy E. Thomas, *Los Angeles.*
Philip K. Gilman, *San Francisco.*

At the organization's meeting held on Thursday morning May 8, the Council elected:

COUNCIL CHAIRMAN: Philip K. Gilman, *San Francisco.*

COUNCIL VICE-CHAIRMAN: Elbridge J. Best, *San Francisco.*

The Council appointed to the Headquarters Administrative Staff:

ASSOCIATION SECRETARY-TREASURER: George H. Kress, *San Francisco.*

EXECUTIVE SECRETARY: John Hunton, *San Francisco.*

† Editorials on subjects of scientific and editorial interest, contributed by members of the California Medical Association, are printed in the Editorial Comment column which follows.

LEGAL COUNSEL: Hartley F. Peart, Esq., *San Francisco.*

EDITOR OF CALIFORNIA AND WESTERN MEDICINE: George H. Kress, *San Francisco.*

Names of newly appointed members of Standing Committees and the Editorial Board will appear in the June issue.

* * *

Next Year's Annual Session Will Be Held at Hotel Del Monte.—The Council proposed to the House of Delegates that the annual session of 1942 be held at Hotel Del Monte. Dates of the meetings will be decided after the American Medical Association determines when it will meet in Atlantic City. If there be no conflict, the California Medical Association will probably hold its session in 1942 during the first week of May. Members who contemplate attendance should apply to Hotel Del Monte for reservations.

* * *

Important Problems Confront the Medical Profession.—Congratulations are extended to the members who have received recognition from their fellows, through election, to posts of definite responsibility in the California Medical Association. Much important work lies ahead. Correct solution of many of the problems confronting organized medicine will require the best thought that the medical profession can bring to bear. Members of the Association are urged to discuss issues in which they are interested with their district and other officers, and to feel free to communicate with the headquarters office at 450 Sutter, San Francisco, concerning matters in which it is thought the facilities of the Association may be of aid.

For the time being, proponents of plans designed to radically change procedures in medical practice are seemingly less militant. Their abatement in vociferous exploitation of pet theories, however, should not be permitted to mislead. It is a question whether many of the propagandists of state and socialized medicine schemes have become much less obsessed with their notions. It is possible that such individuals and groups may be temporarily less aggressive, as they have met with obstacles too difficult to overcome. In all probability, they await only more favorable periods in which to campaign for their plans. To be alert and in a position to combat the antagonists of scientific medicine, is the obligation of every physician, and this duty of alertness and preparedness applies particularly to officers of the State Association and Component County Societies. Members, therefore, are requested to keep in mind that the officers are only the duly elected representatives and, as such, can best perform their functions in proportion to the coöperation given them by those members who honored them with official positions. Officers will be happy to learn the wishes of members.

AMERICAN DOCTORS FOR BRITAIN

President Roosevelt's Appeal Through the American Red Cross.—News dispatches in late April from Washington, D. C., called attention to Britain's need for physicians who could aid in the professional care of its civilian population. The appeal from the British Red Cross was fortified by a Presidential statement, in which the number of physicians needed was placed at one thousand. A press item giving further information appears in this issue, and is worthy of perusal. See page 283.

In reading the announcement referred to, it will be noted that American citizenship will not be waived and that military or naval service will not be part of the obligation. A lieutenant's rank and pay will be given at the outset, with exemption from British income taxes. Only graduates of Class A medical schools will be considered. Other safeguarding provisions are stipulated.

* * *

American Medical Association Renders an Important Service.—In connection with this appeal, it is gratifying to know that the questionnaire information recently collected by the American Medical Association will be of greatest value. The punch-record system, installed in the American Medical Association headquarters, 535 North Dearborn Street, Chicago, made it possible to find the names of more than 20,000 young, unmarried physicians who would be eligible for the service indicated, and to each of these a letter was sent by the American Medical Association, giving full information.

The expense of installing the punch and record system in the Chicago headquarters of the American Medical Association, and of postage and maintenance expenses, exceeded the sum of $50,000! It is to be regretted that in respect to the massive service that has been so generously rendered by the organized medical profession—through its constituted national body, the American Medical Association—it was not possible to secure for the questionnaires that were mailed franking privileges from the Government. The consoling feature, however, is the knowledge that this vast fund of biographic and professional information concerning physicians of the United States is now the sole property of the American Medical Association. The punch-card system installed will permit accurate statistical information concerning almost one hundred different items, with additional subdivisions for geographical areas and other purposes.

* * *

Government Should Recognize Military and Public Health Needs.—Certainly the citizens of our country would seem to be under great obligations to the physicians of the United States, if due consideration and credit are given for the gratuitous service rendered by thousands of physicians working under the Selective Service Act. The aid afforded by the American Medical Association in supplying accurate information concerning physicians who are entering the Army, Navy, and United States Public Health Service, is likewise worthy of deepest appreciation.

It is to be hoped that governmental authorities charged with the administration of the Selective Service Act will recognize, before it is too late, the importance of granting deferments to medical

students who are now in Class A medical schools. What was stated in last month's editorial and other comment on that problem still applies, and will apply until proper action is taken. If provision for such deferments is not made, then, in due course, the military and civilian authorities may find events and needs crowding in on them so rapidly that it will be impossible to rectify the error in judgment in not granting these much-indicated exemptions.

* * *

Appropriations for Researches.—With all the millions of dollars being expended on this, that, or other research regarding material accessories of war implements, it seems impossible for members of the medical profession to understand why ways and means for the conservation of human health and life should be so constantly ignored, and particularly so since, in case the country was involved in war, the lack of adequately trained and qualified medical personnel would mean the unnecessary death of hundreds or thousands of citizens belonging to military and civilian groups.

Some months ago, in an address before a component county society of California, a qualified medical officer in the Aviation Service stated that most of the disasters in aviation were due, not to defects in the airships or material equipment, but to deficiencies of the pilots (human equipment). In fact, if reports be true, more than 90 per cent of the accidents with airships are due to deficiencies of the human elements.

It is strange, therefore, to note the appropriation of hundreds of thousands of dollars for research studies and experiments, designed to improve the construction and capacity of airships, and to compare the same with the few thousands set aside to carry on studies concerning the pilots, human beings, who are called on for work under atmospheric and other conditions where accurate and reliable knowledge is greatly needed.

* * *

How Physicians and Hospitals May Inform Legislators.—A thought that comes in connection with the above is thus:

That every physician and every hospital, or other public health agency, could be of real service in promoting a betterment of the deficiencies concerning which comment has been made, by writing to the United States Senators and Representatives from California in relation to these needs.*

The letters could be made to have a special value if they mentioned, by name, specific hospitals in California wherein service to the public would suffer if an adequate number of interns and residents is not maintained. Attention could be called, also, to the needs of the four Class A medical schools of California and the special importance of maintaining the number of medical graduates at existing figures, if medical service of proper quality is to be rendered in the days ahead—to soldiers, sailors, and citizens in essential industries, as well as to members of the civilian group. Why not write such a letter? By so doing, you will be rendering a real service!

* For list of Congressmen, see page 284.

AMERICAN MEDICAL ASSOCIATION TRIAL: JUDGE'S CHARGE TO JURY

Jury's Findings.—On April 4, 1941, after twelve hours of deliberation, and concluding a trial of eight weeks' duration, a federal district court jury of the District of Columbia brought in a verdict of guilty against the American Medical Association and the Medical Society of the District of Columbia, on charges that these organizations had violated the Sherman Antitrust Law enacted by Congress in 1891. Eighteen individual defendants, including a number of officers of the two medical organizations, were acquitted. On what basis the jury found the societies guilty, and their human agents or representatives not guilty, is not known. Perhaps, because the wording of the Sherman Law, designed some fifty years ago to prevent "restraint of trade," is so loosely phrased and constructed that such a seeming contradiction is permissible.

The question of whether the practice of medicine is a "profession" or a "trade," was not passed on in the recent trial.

* * *

Significance of Justice Proctor's Charge to the Jury.—A press dispatch concerning the verdict appears in the press clipping department of this issue (page 294), and gives additional information. Of special interest is Federal Justice James M. Proctor's charge to the jury prior to that body's deliberations. The charge is printed in full in the *Journal of the American Medical Association,* April 12, 1941, page 1700.

Justice Proctor, in answer to requests by the attorneys of both the Government and the defendants, gave instructions to the jury on certain questions of law. Some of the instructions in relation to the status of medical societies and their authority in matters of membership and ethics are of special interest in view of the vast amount of misinformation so often circulated by forces antagonistic to organized and scientific medicine. For the convenience of readers, the following excerpts are given:

> The defendants had the lawful right to combine and form corporations and associations for the improvement of the practice of their profession and to advance their interests. They had the right to make reasonable rules and regulations respecting their profession and to ascertain the qualifications and character of their members. They had the right to discipline members who failed to abide by the regulations or rules adopted by the associations in the formation thereof and to suspend or expel from membership any member who failed to abide by the rules and regulations. The fact that the defendants adopted such rules and regulations and disciplined members does not of itself constitute an unlawful combination in violation of the statute. They must have combined together with the intent to injure, obstruct or restrain trade, or they must have intended to do acts the necessary effect of which would be to injure, obstruct or restrain trade.
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> * * *
>
> The individual defendants as physicians had a right to determine with what other physicians they would consult, and their refusal to consult with any particular physician is not of itself illegal.
>
> * * *
>
> Physicians have the right to select the hospital in which they choose to treat and operate on their patients; and the refusal of a physician to do business with any hospital because of the composition of its courtesy staff is not of itself illegal.

The defendants American Medical Association and Medical Society of the District of Columbia have the right to adopt rules for just and fair dealing among their members and the right of enforcement of those rules and regulations by such reasonable penalties as they may provide for violation thereof.

* * *

The defendants had the right to reach and attempt to reach their objective of advancing the interests of the medical profession by legitimate persuasion and reasoned argument, and to this end they had the right to tell their side of the story and to persuade others, including the Washington hospitals, other physicians, members of Group Health Association, Inc., and the public to utilize and use the defendants' method of practicing medicine, and to use peaceful persuasion, publicity, articles in the press, in publications of defendants, including *The Journal of the American Medical Association,* and all lawful propaganda to have their methods of practicing medicine prevail over those of Group Health Association.

* * *

The defendants had the right to write letters or other statements among themselves or to other members of the profession or to the public generally, expressing disapproval of or opposition to Group Health Association and the form of medical service offered by it.

* * *

The defendants were entitled, through legitimate persuasion and reasoned argument, to endeavor to support and advance the interests and extension of that type of medical practice believed by the defendants to be in the public interest, without regard to whether such acts hindered Group Health Association, its doctors, members or operations, or any other type or method of medical practice. If they did not go further to conspire to restrain Group Health Association there would be no offense.

* * *

I charge you that the defendants have the lawful right, through action taken in their meetings and conferences, to formulate and adopt rules of medical ethics for the control and government of themselves and the members of their societies in the practice of their profession, and the support and maintenance of such principles of medical ethics by legitimate persuasion and reasoned argument or by enforcement of Society rules, laws and regulations, without more, would not constitute unreasonable restraints against Group Health Association, its doctors or members.

* * *

Any doctor who voluntarily joined the defendant medical societies was required to comply with the constitution, rules and regulations thereof. No doctor would have the right, as against the wishes of the particular society, to retain membership therein regardless of how valuable or advantageous such membership might be to him, and at the same time wilfully violate any provision of its constitution, rules or regulations.

If a doctor desires to retain membership he is bound to obey the constitution, rules and regulations, since membership therein is entirely voluntary; and if, as a result of his nonobservance, he suffers discipline and possible expulsion from the society, any injury, damage or restraint thus suffered by him or by any corporation by which he might have been employed would, without more, not constitute a violation of the statute.

* * *

The Washington hospitals are private institutions under private management and control, and the lawful authority to constitute the medical staffs of such hospitals is vested in the governing boards thereof. Hospitals have a lawful right to make such reasonable rules and regulations for the operation of the hospitals as to the authorities thereof may seem in their best interests. They are lawfully entitled to require obedience to such rules and regulations by all persons dealing with said hospitals, including doctors permitted by the hospitals to practice their profession therein.

The Washington hospitals had the lawful right, if they so desired, to adopt and enact a rule confining their medical staffs to members of the local medical societies, and any restraint resulting thereby to Group Health Association, its doctors, members or operations, would not in itself be a violation of the Sherman Act.

A member of the medical profession duly authorized by law to practice his profession in the District of Columbia is not by reason thereof entitled to practice in any of the private Washington hospitals. Permission to practice in such a hospital is not a right on the part of an applicant doctor but is only a privilege which can be extended or withheld from him at the will of, or in the discretion of, the particular hospital.

If the Washington hospitals or any of them believed that it was in the best interests of such hospital to adopt and enforce a rule confining appointments to the medical staff to members in good standing of local medical societies any such hospital had a lawful right to adopt and enforce such rule, and any resulting injury or restraint occasioned thereby to a particular doctor or other person would not be a violation of the statute.

* * *

The defendant American Medical Association had the lawful right, on request of a hospital, to inspect it for the purpose of approving or disapproving it for intern or resident training, and it had a lawful right to approve or disapprove such hospital based on the inspection so made.

The American Medical Association was lawfully entitled to present for the consideration of the hospitals inspected the so-called Mundt Resolution concerning the selection of medical staffs exclusively from the members of local medical societies, and such action on the part of the American Medical Association would not of itself constitute an act of coercion as charged in the indictment. . . .

* * *

A defendant does not become a party to a criminal conspiracy simply because he is a member of an association which might so conspire, or because he attends meetings of such organization where such conspiracy may be discussed, nor does he become a party to such conspiracy because he has knowledge of its existence or because he may even approve such conspiracy and its unlawful purpose. Before he can be found to be a member of a conspiracy it must appear that he knowingly and intentionally participated therein with the purpose and intention of aiding and furthering it; and you must find, before you can convict such defendant, that such intent existed beyond a reasonable doubt.

It is not unlawful to conspire and combine to effectuate a lawful purpose by lawful means. The defendants could lawfully combine to protect and support their medical organizations, their methods of professional practice, and the principles of medical ethics, by legitimate persuasion and reasoned argument or by any other lawful means. . . .

* * *

If it be true, as defendants claim, that the District Society, acting only to protect its organization, regulate fair dealing among its members and maintain and advance the standards of medical practice, adopted reasonable rules and measures to those ends, not calculated to restrain Group Health, there would be no guilt, though the indirect effect may have been to cause some restraint against Group Health. It would be justified if but an incidental result of reasonable regulation of the membership and affairs of the organization, for the statute comprehends only such restraints as do directly and unreasonably affect freedom of competition in the trades and professions.

* * *

In joining the District Society members assumed the duty of compliance with laws and regulations thereof. The right to practice medicine gave a doctor no right to be a member of the Society. Discipline and control of members of a society, within reasonable bounds, are essential. When applied in good faith, under fair rules, without ulterior purpose to injure the business of a member or others, there is no wrong. However, such rules and regulatory actions cannot be justified where the real purpose, or the natural results, are to interfere with free competition. . . .

* * *

The hospitals had the lawful right to prescribe rules and regulations governing the use of their facilities by doctors

and patients. In their boards was vested the authority to decide what physicians would be allowed the privileges. A doctor had no right to demand them. To grant or refuse the same rested solely with the hospital. Therefore, if denial of privileges to Doctor Selders, or other members of the Group Health staff, represented the voluntary decision of the boards, no question would arise as to the legality of their acts. However, if refusal was arbitrary and to serve a criminal conspiracy against Group Health or their doctors, it would violate the statute. . . .

NATUROPATHIC LICENSURE

Two Naturopathic Statutes Before the Legislature.—In the list of proposed laws having public health implications, and submitted to the California Legislature now in session, are two companion bills: A. B. 1301 (Assemblymen Richie, Pelletier, and Kilpatrick) and S. B. 977 (Senator Swan), which would create a State Board of Naturopathic Examiners.

These proposed statutes, intended to give California an additional sectarian board of examiners, are of particular interest for a number of reasons.

* * *

Naturopathic Referendum-Initiative of 1939 That Failed.—For those who are unaware of the fact, it can be stated that during the latter half of 1939 a naturopathic group engaged actively in an effort to secure a sufficient number of signatures of citizens to an initiative petition (referendum-initiative), designed to make it mandatory upon the Legislature now in session either to enact the proposed act to establish a board of naturopathic examiners, or at the next state election to refer the proposed statute to the electorate, as submitted, with or without an alternative act drafted by the Legislature.

The naturopathic group is said to have spent some $14,000 in this effort, which failed to secure the approval by the Secretary of State because it did not contain a sufficient number of valid signatures of voters.

* * *

Naturopathic Group Turns Again to the Legislature.—Not disheartened, and as in the last several legislative sessions, the sponsors of the measure next turned to the fifty-fourth biennial meeting of the California Legislature, now in session, and submitted in the Assembly and Senate two companion bills (A. B. 1301 and S. B. 977), either of which, if enacted into law, would bring into being a fourth healing-art board of sectarian type for California.

Since it is important for members of the medical profession to appreciate the scope of the endeavors referred to, and because of the important public health and medical standards principles involved, space is given to the informative data, which follows.

* * *

Titles of Assembly Bill 1301 and Senate Bill 977.—The title of Assembly Bill 1301 reads:

An act to regulate the practice of naturopathy, to establish a State Board of Naturopathic Examiners, and to define its powers and duties, to license schools of naturopathy, providing for the revocation and suspension of such licenses, and establishing a special fund for the administration thereof.

The title of Senate Bill 977:

An act to regulate the practice of naturopathy. Defines naturopathy. Creates Board of Naturopathic Examiners, prescribing its qualifications, powers, duties, and compensation. Board empowered to examine applicants, issue, deny, suspend, and revoke licenses to practice naturopathy; investigate and inspect institutions teaching naturopathy and issue or deny certificates of approval thereto. Prescribes educational and other qualifications of licentiates, grounds for denial, suspension and revocation of licenses. Accords licentiates, within scope of license, same rights granted physicians under public health laws. Specifies unlawful acts, prescribing penalties and disposition of moneys received. Prescribes rights and duties of naturopathic colleges. Defines terms used in act. Repeals conflicting laws.

* * *

Illuminating Article in Journal of the American Medical Association.—Turning now to an article in the *Journal of the American Medical Association*, April 12, 1941, page 1907, by J. W. Holloway, Jr., Esq., attention is called to efforts made by naturopaths in former years which only older members of the profession may remember.

In 1904, the California Legislature enacted a law which made it mandatory upon the then Board of Medical Examiners of the State of California (when California had only one healing-art board—a conjoint board) to issue licenses to practice naturopathy to all persons who would present to it a certain certificate that had been issued by "The Board of Examiners of the Naturopathic Physicians of California." Within six months after the passage of the act, in 1904, the records indicate that a total of about 103 persons were thus certified to practice naturopathy in California.

It is said that the corporation bearing the above name is still in existence, but certificates issued subsequent to the time-period noted are not valid as regards licensure to practice naturopathy in California.

Such is the history of the "appeasement" endeavor in 1904, publicity of which in that, and for several years thereafter, gave unhappy hours to more than one leader in the profession who thought it was better thus to placate a group of sectarian practitioners than to give vigorous opposition. Thus do we learn.

* * *

Naturopathic Initiated-Statute of 1934.—In 1934, the naturopathic group placed a straight initiative (so-called initiated-statute) on the state ballot, but this went down to defeat by a vote of 1,115,000 to 492,000.

The 1939 attempt to secure a legislative initiative (so-called referendum-initiative) has already been referred to.

* * *

Proposed Powers of Existing "Naturopathic Association of California," in Assembly Bill 1301 and Senate Bill 977.—Before leaving the subject, and as a matter of record and for comparison, it may be of interest to note the phraseology used in the provision for automatically granting naturopathic licenses to persons possessing membership certificates from certain "naturopathic associations":

1. In 1904, the certifications were granted by the "State Board of Examiners of the Naturopathic Physicians of California";

2. In 1939 (in the Referendum-Initiative that failed to secure an adequate number of signatures, and wherein a new naturopathic organization was named) it was the "Naturopathic Physicians' Association of California" that would have been given the power to grant the certifications; and

3. In 1940, in subsection (d) of Section 13 of the proposed statute, as outlined in A. B. 1301, the "Naturopathic Physicians' Association of California" again appears (the phraseology of subsection (d) of Section 12 of S. B. 977 being identical with that in companion bill A. B. 1301).

Text of the provisions as given in the three measures, follows:

1. The 1904 paragraph, as given in *Journal of the American Medical Association,* on page 1707, reads as follows:

Any person who holds an unrevoked certificate issued by the Board of Examiners of the Association of Naturopaths of California, incorporated under the laws of the State of California, August 8, 1904, and who shall be practicing naturopathy prior to the passage of this act, shall be entitled to practice naturopathy in this state, the same as if it had been issued under this act. The Board of Medical Examiners shall endorse said certificate at their first meeting after this act becomes a law, or at any subsequent meeting of the Board, but not later than six months after the passage of this act by signature of its president and secretary and affixing its official seal. *Provided, however,* that the holder of such certificate has signed his or her name on the back of said certificate and the president and secretary of the Association of Naturopaths of California, have certified over their respective signatures that the holder of said certificate is the rightful owner of same.

From the 1939 referendum-initiative that failed, the following excerpt is taken:

(d) Any person who has been a legal resident of the State of California for one year immediately prior to the effective date of this act who can establish to the satisfaction of the Board by affidavit and/or any further proof required by the Board that he is a resident graduate of a legally chartered school, college, academy or institution of learning teaching a course in natural therapeutics and whose training approximates the naturopathic subjects contained in subdivision (b) of Section 12 of this act and who makes application to the Board within ninety days after this act becomes effective and who shall pass an examination such as the Board may require. *The Executive Board of the Naturopathic Physicians' Association of California, as the sponsors of this act, is hereby empowered to act as the committee to investigate* the qualifications of all applicants for examination under this subdivision, and shall report their findings to the Board of Examiners. However, the Board shall refuse to examine under this subdivision any applicant whose total number of certified hours of education in legally chartered schools of the healing arts is less than the total number of hours required to qualify him for examination under any other act regulating any system of nonmedical healing in the State of California.

Coming now to the year 1940, in A. B. 1301 and S. B. 977, at the present time before the California Legislature, the phraseology below is found:

(d) *Any person who holds an unrevoked certificate issued by the Board of Examiners of the Naturopathic Physicians' Association of California shall be entitled to practice naturopathy in this State the same as if it had been issued under this act. The Board of Naturopathic Examiners appointed under this law shall issue to the holder of said certificate a license to practice naturopathy at their first meeting after this act becomes a law, or at any subsequent meeting of the Board, but not later than six months after this act becomes effective; provided, however, that the holder of such certificate has signed his or her name on the back of said certificate, and the president and secretary of the Naturopathic Physicians' Association of California have certified over their respective signatures that the holder of said certificate is the rightful owner of same.*

Comment.—If either A. B. 1301 or S. B. 977 were enacted, the provision noted above, whereby an unknown number of naturopathic practitioners with indeterminate qualifications could automatically receive California licenses to practice (as was the case in 1904, some thirty-seven years ago) is one worthy of the serious attention of all citizens, both lay and medical!

The subject is the more important because S. B. 977, referred to the Senate Committee on Governmental Efficiency on March 28, as amended, was sent out to the Senate floor for consideration. Since that time the measure has not moved forward. However, to be kept in mind is the fact that the bill did get out on the Senate floor. It is, therefore, not without potential menace.

* * *

Names of Various Societies.—It is not without interest, also, that the naturopathic groups, in different parts of the United States, seem to have found so-called "licensing societies" to be of value in the promotion of their objectives,* as witness:

In Arizona, their licensing group had the name "Examining Board of the American Naturopathic Association, Arizona District";

In California, the "Association of Naturopaths of California";

In North Dakota, the "North Dakota Naturopathic Physicians, Inc."; and

In Texas, the "Texas State Naturopathic Association."

* * *

Conclusion.—The conclusion must be drawn that eternal vigilance is necessary by all who believe in high public health and healing-art standards, and who hold that the enactment of undesirable laws in regard thereto should be prevented.

Other State Association and Component County Society News.—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 277.

EDITORIAL COMMENT†

MILK-BORNE CARCINOGENIC VIRUS

Seven years' experimental and statistical evidence, tending to prove the existence of a milk-borne carcinogenic "influence" in mice, a catalyst having all of the essential characteristics of an ultramicroscopic virus, is currently summarized by

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* See *Journal of the American Medical Association,* April 12, 1941, page 1707.

† This department of CALIFORNIA AND WESTERN MEDICINE presents editorial comments by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California Medical Association to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

Bittner[1] of the Jackson Memorial Laboratory, Bar Harbor, Maine.

The existence of milk-borne immunologic factors has been recognized since the time of Theobald Smith,[2] who found that female guinea pigs artificially immunized against diphtheria toxin may transfer an effective amount of diphtheria antitoxin to their offsprings in breast milk. He afterward showed that in cattle an essential normal immunologic factor is transmitted to newborn calves through the first colostrum feeding. Deprived of this initial feeding, most calves die from saprophytic infections. Since an initial feeding with normal adult cow serum can be substituted for colostrum, it seemed safe to conclude that passive colostral immunity is due to the transference of humoral antibodies. It is well recognized, however, that certain other types of natural immunity are not thus transferred. Wright,[3] for example, has shown that in mice transference of natural resistance to encephalitis virus is not affected through the breast milk. Susceptible mouse strains, nursed by resistant foster-mothers, do not lose their hereditary susceptibility, nor do inherently resistant strains acquire susceptibility by foster-feeding.

Discovery of a milk-borne carcinogen "influence" was made in 1933 by the staff members of Jackson Memorial Hospital at Bar Harbor.[4] This laboratory had available several inbred strains of mice with widely different hereditary tendencies to breast tumor. At one end of the susceptibility scale there were certain strains, 95 per cent of whose members developed breast cancer. In contrast there were resistant strains, in which the incidence of breast tumor was as low as 0.5 per cent. Under routine methods of breeding, each strain maintained its inherent carcinoma percentage unchanged from generation to generation. If the routine breeding method was altered, however, the young being placed to the breast of foster-mothers, the young tended to acquire the hereditary percentage of the foster-mothers. Thus, a 94.9 per cent susceptible strain yielded 0.7 per cent susceptible young, as a result of being nursed by 0.5 per cent susceptible foster-mothers. A 0.5 per cent susceptible strain was raised to an 89.8 per cent susceptibility as a result of foster feeding.[5] There evidently was a milk-borne extra-chromasomal gene or determinant, capable of modifying carcinous heredity. This discovery has been adequately confirmed by later investigators.[6]

Seven years' study of this milk-borne "influence" has shown that this transfer is not due to a protective antibody in the milk of low-cancer stock, but to an active carcinogenic factor in the milk of high-cancer stock. Statistical evidence suggests that this breast-cancer-producing factor is a catalyst, capable of absorption from the gastrointestinal tract of the nursing young, and of multiplying in the tissues of its new host.[5] This hypothetical catalyst is present in the milk of high-cancer stock during the entire lactation period. It is also present in the spleen, thymus and mammary gland tissues of such stock. It is further evident from available data that low-breast tumor strains of mice, normally free from this extra-chromosomal determinant, may occasionally "acquire" this synergic carcinogenic factor, with a resultant change to a high-breast-tumor stock.

An impartial pathologist cannot help being struck by the similarity between this hypothetical milk-borne extra-chromosomal carcinogenic catalyst and an ultramicroscopic virus. Modern methods of virus research apparently have not yet been applied to this problem. If Bittner has inadvertently proved the existence of a milk-borne carcinogenic virus in mice, it may well be regarded by future historians as the most important basic medical discovery of the present generation.

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Pneumonia Complicating Operations Is Treated Effectively.—Infections of the respiratory tract complicating surgical operations or severe injury should be treated in the same manner as any acute lung infection, Dr. Lewis T. Stoneburner, III, and Dr. Maxwell Finland, Boston, advise in *The Journal of the American Medical Association.*

Pointing out that the availability of highly potent specific remedies for the treatment of pneumonia, such as serums and sulfapyridine and sulfathiazole has resulted in a sharp drop in the death rate from this disease wherever such remedies have been used extensively, the two physicians declare that "it is probably fair to say that pneumonia occurring after surgical operations or after serious trauma [injury] is usuallly considered by both surgeons and layment to be an unfortunate complication which often results in fatalities when the treatment of the primary condition is otherwise successful."

They report on their findings from 279 cases of pneumococcic pneumonia complicating surgical operations and ninety-two such cases occurring after serious injuries. In all instances the type of pneumonia was ascertained. Modern specific treatment was found by them to be as effective in pneumonia following injuries as in primary cases of the disease and also to be highly effective in cases following operations.

They advise that pneumococcus typing should be done and cultures of sputum or of material from the throat and blood cultures should be taken as soon as a diagnosis of pneumonia is suspected. Treatment with sulfapyridine and sulfathiazole should be instituted, under proper control, as soon as evidence of pneumonia appears. Specific anti-pneumonococcus serum may be given as it is evident that the drug is not effective or is not properly tolerated.

It is not as a destroyer of property or as a consumer of food but as a health menace that the rat does the greatest harm.

ORIGINAL ARTICLES

THE HOUR OF DEATH*

By EMIL BOGEN, M. D.
Olive View

"TO everything there is a season, and a time to every purpose under the heaven. A time to be born and a time to die. . . ." Ecc. 3:2. That man is mortal and all that are born shall die is generally recognized, but it is not so easy to say just when these deaths will occur. Recognition of the hour of death is of concern to all; but despite the efforts of astrologers and physicians, it is only under rare, special conditions that the exact time of death of an individual may be safely predicted.

Facts, unknowable about individuals, however, may often be ascertained in regard to groups or masses of individuals. The constancy and predictability of birth, death and marriage rates, and the isolation of factors responsible for some of their perturbations, form one of the most striking applications of modern biometry.

The investigation of the time of occurrence of deaths in a community or population group may not be merely a Cassandra-like croaking of the inevitable, but may indeed point to ways by which some of these deaths may actually be averted.

The idea that there is a difference in the frequency with which deaths take place at the different hours of the day has been expressed by many authors, both lay and medical. Thus, to cite but a few, Laycock, over eighty years ago, asserted that "death is most frequent" at the hours from 4 to 6 a. m., while the opposite is the case for the hours from 8 to 10 a. m.; and Dickens also remarks on the death of his characters occurring at ebb tide, or before dawn.

Attempts by medical workers to check this common belief have been unsuccessful, but the number and manner of the work have not appeared convincing. Inasmuch as the hour of death appears on the modern death certificate, filed for practically all deaths in this country, it would seem a simple matter to obtain the necessary figures from any vital statistics office. However, inquiry at the Los Angeles city, county, California State and National vital statistics offices, and a number of other localities, has revealed that in no instance is this data compiled in such a manner as to be available. In the city of Los Angeles, during the year 1935, 16,411 deaths were reported, and these certificates were accordingly, individually gone over, tabulated and analyzed.

The actual time of occurrence of deaths depends upon many factors. In the case of conditions in which the death occurs relatively soon after the initial onset of the condition, as from accidental, homicidal or suicidal trauma, or at a relatively fixed interval following the onset, as in lobar pneumonia, rabies, etc., the most important determining factor is the time of exposure to the causative agent, both for era, decade, year, month, day, and even hour. For more chronic conditions, where the disease may persist for some indefinite time before death, the frequency of exposure to the causative agent is still the chief factor responsible for the perturbations by era and perhaps decade; but the exact year, season, day, and particularly the hour and moment of death is apt to be determined by a multiplicity of minor precipitating factors which may tend to prolong or shorten the duration of the conditions before death ensues. A sharp distinction is often possible between the etiologic or causative factors of death, without which death would not have occurred at all, and the precipitating or immediate factors which determine the time of, rather than the actual occurrence of the death.

In the case of childbirth, the etiologic factor is the fertilization of the ovum, and the era, decade, year, and month of birth is mainly determined by the opportunities for such fertile connections. The exact day, hour and minute of birth, however, may be determined by a multiplicity of minor factors, such as the selection of time for operative intervention, the initiation of labor pains by excitement or activity, etc.

Factors affecting the time at which death might occur include uncontrollable environmental conditions, such as the height or duration of maximum, minimum, average or change of the meteorologic phenomena, temperature, humidity, rainfall, wind or air movement, or other factors affecting ventilation, illumination, the duration and intensity of sunlight and the exposure to artificial sources of light, and perhaps the phase of the moon, both in regard to the amount of night illumination and possible effect of such polarized light, and the possible relationship to gravitational effects similar to the tides.

Other environmental effects include the location of the individuals, whether in bed, sedentary or active, exposure to stimuli such as sound, noise, speech or music, or to visual stimuli, or traumatic forces in the vicinity, the use of alcohol and other drugs and specific activities such as sleep, moving, eating, working, etc.

Some of the environmental factors undergo regular cycles of intensity, varying periodically during the day, week, month or year, others vary irregularly or aperiodically, while others remain relatively constant. The various rhythms in the environment may result either in stimulation or sedation of the various activities within the body, which might consequently influence the exact time of exitus.

Metabolic rhythms subsequent to habits of alimentation are important determinants of the state of body functions. The time and manner of food intake, the temporary increase in blood pressure during ingestion from gastric dilatation and abdominal distention, increasing vascular resistance, as well as from reflex and psychic stimulation, the fall in systemic blood pressure during the period of splanchnic dilatation following eating, in the course of digestion, and absorption, the lowering

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of energy during states of hunger, and the cyclic curves of blood sugar and other chemical elements in the blood which result from the eating habits, have been repeatedly noted. Diurnal variations in blood counts—total white, red, differential, etc., as well as in blood platelets—have been observed, but the claims that they are related to food ingestion, etc., have been disputed.

Variations in excretory function, the well-known increased concentration of the urine during the nighttime, the greater water intake during the day, the habitual hours of bowel movements and the increased blood pressure during defecation, may affect the hour of death in some individuals.

The effect of muscle tension and movement on venous return and blood pressure are marked, and so general muscular activity may affect the precipitation of death. The state of the autonomic nervous system and its effect on the tone of the vasomotor system may similarly affect the time of death. The effect of excitement, sexual activity, etc., on the blood pressure and circulation may be of critical importance. Other neurologic rhythms may be of significance in this connection. Psychic stimulation, nervous tension or apathy, and the contrasting will to live and will to die, also affect the duration of life.

Part of the differences in the hour of death, as recorded in the death certificates, at different times of the day, are due not to real differences in the time at which death occurred, but to differences in the time at which death was discovered. Thus it is natural to expect that many persons, dying in their sleep, are not discovered to be dead until someone tries to awaken them in the morning, accounting for a relative increase in the number of deaths reported in the morning hours after awakening. Others dying during the day may be discovered when there is occasion to observe them, as at mealtimes, resulting in an apparent increase in the number of deaths reported for the hour just before mealtimes. The same is true for the hour of bedtime. Among the sick, the hours of the nurses' services, temperature taking, etc., may also be accompanied by a higher number of reported observations of death.

The extent to which such factors affect the mortality rates from different conditions varies. Patients in hospitals with special nursing, or in large wards, or persons living at home with much contacts with others, and persons whose last hours are filled with pain or activity, are more apt to have the exact hour of death noted than those who quietly go out in solitude.

HOUR UNKNOWN

The 3,254 death certificates in which the hour of death was not stated included 1,569 instances of accidental, homicidal, or suicidal deaths from trauma or poisoning, mainly reported by the coroner. Most of these deaths probably occurred soon after the trauma, but there was no record of the hour on the certificates. Reports from other data indicate that these deaths probably occurred, for the most part, during the day or evening hours, and that if they were actually included, they would have occurred less often during the classical early morning hours before dawn.

Another 1,098 deaths in whom the hour was not reported were ascribed to cardiac or circulatory disease, or pneumonias. Many of these were probably instances of the person being found dead, and so the exact time of death was unknown. It is possible that such an occurrence might have been more apt to take place during the night, and the lack of information here might cloud our findings; but the fact that these cases constitute less than a fifth of the total number of deaths with these diagnoses, and that the distribution of the remaining four-fifths does not show predominantly nocturnal time, speaks against this idea. Cases of "cardiac deaths" of a sudden nature, particularly those listed as due to coronary disease, often were coroners' cases, and had no date entered on the certificate, even though it might have been ascertainable if the coroner's office had cared to investigate.

If the 3,254 deaths at unknown hours are distributed similarly to those for known hours, from these same causes, the difference in favor of the day would be even greater. A large proportion of these deaths at unknown hours may, however, represent persons found dead after dawn, and therefore not recorded for any particular hours. This omission may possibly invalidate many conclusions otherwise to be drawn from this data.

TOTAL DEATHS

For the entire 13,157 deaths for which time was reported, considerable variation was observable at different hours, the median number of deaths per hour per day being two, varying from 0 to 12, and the total number of deaths per hour per year varying from 456 at 10 a. m. to 608 at 7 p. m. The oscillations were irregular. Only twice was a rise or fall continued for more than one hour. This might suggest that an increased death rate in certain hours would result in a correspondingly lowered one the succeeding hour, or vice versa; but more data would be needed to prove this. Comparison of the different groups of the cases here included failed to show much agreement in these hourly changes, except for a consistent drop after 1 and 8 p. m., as compared with the preceding hours.

Grouping the hourly figures in three-hour periods, shows a similar oscillation or fluctuation, oscillating from 1,526 or 11.6 $\pm$ 0.8 per cent of all deaths around midnight to 1,809, or 13.7 $\pm$ 0.9 per cent, of all deaths around 6 p. m. The difference here of 283 deaths is 2.1 $\pm$ 1.2 per cent, or nearly two times the standard error of the difference. The traditional period before dawn, 2 to 5 a. m., when deaths are supposed to be most prevalent, here showed 1,632 deaths, as compared with the average of 1,645 for the eight three-hour groups. The lowest death rates were seen during the two periods from 11 a. m. to 2 p. m. (1,526) and 11 p. m. to 2 a. m. (1,580), the middle periods of uninterrupted sleep or waking.

Marsh suggested that the similar drop at noon and midnight, which he found in his series in New

York, was due to the uncertainty of physicians as to whether to write the correct M (meridian) or P. M. or the possible N for noontime, or the N (nox) or A. M. or M for midnight, and accordingly evading the issue by writing 11 or 1. The failure to show a compensatory rise at the adjacent times in this series speaks against this curious proposal. The two periods, 5 to 8 a. m. and 5 to 8 p. m., when the daily routine is being changed, either to wake or go to work, or to return from work and go to sleep, are accompanied by higher death rates than the times when already established rest or activity is being continued.

The entire daytime period, from 6 a. m. to 6 p. m., showed 6,662 deaths, compared with only 6,494 during the night, or an excess of 168 deaths during the day. For the twelve hours, starting with eight o'clock, including the hours of awakening and of going to sleep with the nighttime, the figures show a difference of 278 more deaths during the daytime, an excess of over 4.0 per cent over the night.

If it is true, as the data indicate, that the night is really safer than the daytime, further studies might be suggested to determine the factors responsible for these differences, and the possibilities for their control. The times of lowest death rate correspond to the hours of least frequent pulmonary hemorrhage, as shown in a study published at Olive View some years ago. This was then interpreted to indicate the times of lowest bodily vigor and blood pressure. An excess number of deaths may be due, perhaps, not to failing physical forces, but rather to excess stimulation or demand on the part of one or another system. The inconclusive and small differences shown in the gross total mortality rates might be interpreted to represent a balance of deaths due to stimulation, as opposed to those due to weakness or inertia. A more significant set of findings might be expected if the data were classified rather in terms of the probable cause of death.

Most of the (over 300) causes of death listed in the death certificates are represented by such small numbers that no significant differences could be expected in their diurnal occurrence. Many of the certificates, moreover, contained a number of contributory or associated causes of death. For the purpose of this study the diagnoses were grouped under forty main headings, and only the first diagnosis appearing on the certificate was considered. Some of the diagnoses are admittedly scrap heaps of mixed pathologic entities, such as "arteriosclerosis and chronic myocarditis" which leads the list with 2,150 deaths, or diseases of early infancy, which accounted for 810 such deaths.

Although deaths generally occurred at a considerable interval following the development of the diagnosed condition, some of them may have been rather sudden, or resulted from repeated attack or a relapsing condition. Such acute, sudden, and sometimes immediately fatal conditions might be expected, as in apoplectic strokes, or coronary infarction, to occur more often in the daytime (as in Masters' series), and the figures here seem to bear out this expectation, since both conditions show more deaths in the daytime than at night. The smaller excess in the day deaths from myocarditis and nephritis and other genito-urinary conditions, may indicate similar conditions included in them by misdiagnosis, the heavier burden put on the kidneys during daytime by diet, etc. The similar finding for blood diseases, especially pernicious anemia, is not clear.

The fevers and exanthems, constituting the chief contagious diseases, show relatively little difference in incidence at the different times of the day or week.

Tuberculosis deaths occur more often during the hours from 7 to 8 in the morning, and from 2 to 5 in the afternoon, as observed in the similar group of 929 deaths at the Olive View Sanatorium during the previous decade. The similarity between these rises and the hours of most frequent hemorrhages suggests that these accidents may be important determining factors in producing the periodic rise in the death rate at this time. Measures to prevent stimulation and exertion at these times, especially excessive coughing, might aid in lessening this toll.

Cancer deaths show relative decrease during the hours from midnight to 2 a. m., and from 6 to 8 a. m.; in other words, a rise before dawn, followed by a drop after day breaks, but the total number of deaths during the night is even less than during the daytime, especially if we make the day hours to begin at 8 a. m., as is apt to be the case with the sick. The deaths at unknown hours are less than 4.0 per cent of the total number, and not sufficient to account for the discrepancy unless nearly all of them occurred at night. The daytime increase in deaths in this group might be ascribed to operative deaths during the afternoon, but the exact shape of the hourly curve does not appear to support this explanation, the excess occurring in the afternoon, rather than in the morning, which is usually chosen for operating. Deaths from continued bleeding after operations, or other short delays might account for the differences in some cases, or perhaps cancer cases may be operated more often in the later hours of the day, after the more emergent cases are cared for.

Diabetes deaths show distinct evening rise, one-seventh of all occurring between 6 and 8 p. m. The number of unknowns is inadequate to explain this difference.

The increase in the frequency of deaths from cerebral hemorrhage during the evening hours, from 6 to 8, as well as the similar rise in the diabetics, suggest perhaps a postprandial effect, or increase in pressure at that time. A slight tendency to "die at dawn" might be seen in the rise from 4 to 6 a. m., but this is not marked, and might be ascribed to discovery of nighttime deaths at that time, since the number of deaths at unknown hours here is also sufficient to account for this difference, but not for the evening excess.

There is a marked excess of coronary deaths during the daytime, despite a drop following each meal, following an increase at each mealtime; but the low night figures might be entirely accounted for by the large number of deaths at unknown

times, which constitute more than a third of all such deaths.

Myocarditis, a general term covering a multitude of causes of death, generally not well understood, consists principally of instances of congestive heart failure. The diurnal incidence of these deaths closely parallels those of coronary disease, being more frequent in the daytime; but this figure is invalidated by the large number of deaths at unknown time, constituting nearly 15.0 per cent of the total. The same is true of the other circulatory diseases reported.

If we add together these three heart and circulatory conditions, the total figure gives the same impression even more markedly, a marked excess of deaths in the day as compared with the night, and a drop at each mealtime. The excess of attacks during the night, in Masters' series, differs from the hour of death in cases reported here, either because of the unknowns being predominantly night deaths or because of an average interval of some hours between attack and death. He does not emphasize a mealtime drop in attacks, as seems to be the case of deaths, but his figure of only 5.0 per cent at that time seems consistent with such a drop, if we consider that the three meals occupy about three hours during the day, or 12.0 per cent of the time.

Deaths from poisonings here include many deaths directly due to alcoholic poisoning, and others due to suicidal or other poisonings often taken during intoxication. Poisoning deaths by hours of the day show a marked excess in the afternoon and evening, the times of drinking, as compared with the morning; but the large number of deaths at an unknown time suggests that even more of them might have occurred during the late hours and the night, only to be discovered at dawn, accounting for both the low night figures and the increase at 4 to 6 a. m. The lowered figure during the later morning, however, seems insignificant, as these would be the hours of less drinking. The peak at noon suggests possibly fatal poisoning at mealtimes, as a similar peak occurs at 5 a. m. and 5 p. m., but the numbers here are too small to be significant.

There is a marked excess of pneumonia deaths during the daytime as compared with the night, but the large number of deaths at unknown hours perhaps accounts for this discrepancy. The drop, instead of the traditional rise before dawn, however, and a similar drop at the noon hour, appear less readily explained away in this manner.

There is little difference in the incidence of deaths from appendicitis or gastric ulcer at different times of the day, except for a slight drop during the midday and midnight hours, whose significance is not clear.

Nephritis is another diagnosis apt to be inaccurate, through confusion with cardiovascular disease. The marked excess reported for the daytime hours, instead of at night, for this disease, may be due to the large number of deaths reported as at unknown time, which happened during sleep; but the excess between the hours of 4 and 8 p. m., when nearly one-half more deaths occurred than at any other hour of the day, deserves further study.

Deaths from pregnancies and puerperal conditions are more common during the morning, from 4 to 6 a. m., the dawn hours, possibly coinciding with excess births at this time, or with exhaustion following a night of sleepless labor, with a lower fatality rate in the evening; but the small numbers and the large number of unknown hours of death make this finding questionable.

The few deaths recorded as due to senility occurred most often during the warmer hours of the afternoon, but there was also a peak of deaths in the early hours of the morning, from 3 to 5 a. m.

Most suicides probably occur during the lonely hours of the night and early morning, but our data fail to show this, since nearly all of the suicides were listed as "Hour of death unknown."

Murders probably happen more often during the afternoon and evening, when human contacts leading to such acts are commoner, but our data here are also deficient since nearly all murders were recorded as "Time unknown."

Mortality data by day of the week are not available in the literature. Over 16,000 deaths occurring in the city of Los Angeles, in 1935, have been analyzed from this point of view. The total number of deaths by day show relatively slight oscillations as follows: Sunday 2420, Monday 2308, Tuesday 2451, Wednesday 2263, Thursday 2232, Friday 2328, Saturday 2406, the difference between the maximum on Tuesday and the minimum on Thursday being only 219 deaths, or less than 10.0 per cent.

The excess in deaths from automobile accidents on Sundays, more than 20.0 per cent greater than on any other day, and nearly double that on Wednesday (diff. $= 10 \pm 3.3$ per cent or $3 \times$ probable error), reflects perhaps the greater use of alcohol and abandon rather than of automobiles on that day. Other accidents also show a distinct week-end increase. The deaths from poisonings, half of whom are alcoholic, occur at week-ends nearly twice as often as on week-days. The increased mortality from myocarditis, other circulatory diseases, and pneumonia on Sundays, with a lesser rise on Saturdays, suggests a relationship. Could the excitement and stimulation of visitors and more persons around the house on these off-days play a rôle in accelerating these deaths?

On the other hand, the relatively low incidence of deaths on Sunday from abortions, appendectomies, and bone diseases may reflect the lessened number of elective operations done on this day. Other variations in the death rates during the week are less readily distinguished or accounted for.

Variations in behavior and activities at different days of the week are of considerable importance. The increased use of automobiles for pleasure, of alcohol, and of excursion trips on week-ends may not be overlooked. For many persons the week-end is the time of rest and relaxation, for others it is a time of increased physical and social activities. The diet on the week-end may also differ from that during the week. A diet of left-overs and scraps on Saturday, or of heavy family din-

ners on Sunday, may be of effect on the death rate; for example, from diabetes.

DEATHS ON HOLIDAYS

Holidays interrupt the daily routine in a manner similar to that of week-ends. Work may be suspended, eating and drinking may be increased, rest may be increased or decreased, depending on the setting. The chief holidays generally observed here include New Year's Day, Lincoln's and Washington's birthdays, Labor Day, Independence Day, Memorial Day, Columbus Day, Armistice Day, Thanksgiving Day, and Christmas. In 1935, these ten days included one Monday, two Tuesdays, one Wednesday, two Thursdays, three Fridays, and one Saturday.

The total number of deaths on the holidays was slightly greater than that on the days following the holiday, but lower than that of two days before the holiday. The number of deaths from heart disease was slightly greater on the holidays, but less on the day after, when it was the same as two days before. Deaths from poisonings and accidents were greater on the day after the holiday than on the holiday, or even on the two days before the holiday.

If we consider that the greatest amount of stimulation and exertion occurs during the daytime, during the week-ends, and during the wintertime, it is interesting to observe that these are the times of the greater number of deaths from all causes, and that circulatory and respiratory conditions particularly are most apt to terminate fatally at these times.

An investigation of the relationships of the time of death from various causes to the meteorologic phenomena during the time in question would be of great possible value. The labor involved in such an attempt has so far precluded its accomplishment, but it is hoped that this may be done at a later date.

The accumulation of more reliable factual information is, necessarily, prerequisite to any attempts at interpreting the relationships between the time of death and other possible factors. Careful study of the quantitative relationships are then needed to unravel the nature of the relationships. Qualitative analysis of the factors involved is then in order to explain their significance.

A study of the exact mechanism of death as related to the hour at which it occurs, rather than merely the proximate cause of death given on the death certificate, may also be of value. Such a study has been made of four hundred autopsy protocols at the Olive View Sanatorium, and the results presented at the 1939 meeting of the California Sanatorium Association. It revealed that the chief reason for the high peak of tuberculosis deaths during the morning hours just after arising consists in the increased coughing and expectoration at that time, with consequent excess deaths from hemorrhage, spontaneous pneumothorax and other catastrophies. The rise in deaths during the afternoon following rest period, or during the visiting hours, occurred mainly in those patients with marked asthenia, as in the cases with intestinal and laryngeal involvement, or with miliary tuberculosis.

CONCLUSION

This study of the time of occurrence of all of the deaths reported in Los Angeles during the year 1935 reveals certain suggestive differences.

There are more deaths during the hours of the day than at night.

The daytime excess is most marked with apoplexy, heart disease, tuberculosis and pneumonia, and deaths from diabetes and from poisoning occur more often at night.

Possible explanations for some of the discrepancies have been hazarded. The data available, though compiled at great labor, are still too small to yield conclusive information regarding the consistency and significance of many of the differences noted. If the Census Bureau could be persuaded to make a similar tabulation for the entire country, for one year, at least, it is believed that many other interesting observations might be made. Similar studies in other localities, and in special institutions, may also furnish useful checks and additional information.

Olive View.

EQUINE ENCEPHALITIS IN THE SAN JOAQUIN VALLEY*

By R. J. VAN WAGENEN, M. D.
Fresno

IN presenting a clinical study of the cases of equine encephalitis in the San Joaquin Valley, the author of this paper wishes to state that his major endeavor has been to select only that material which is applicable at the bedside in the diagnosis and handling of this disease. He has purposely avoided, as far as possible, the controversial and scientific phases of this disease.

OBSERVATIONS IN YEARS 1937 AND 1938

In the late summer and early fall of 1937 it became apparent that the San Joaquin Valley, especially the region around Fresno and Tulare, was experiencing a high incidence of encephalitis. Some of these cases had a rather violent clinical course and the mortality rate was exceedingly high. Fresno County alone reported thirteen fatalities. The Department of Public Health made an effort to isolate the virus, but was unsuccessful. When a similar epidemic occurred in the fall of 1938, a more systematic course of close coöperation between the various public health agencies and the research workers at the Hooper Foundation resulted in more fruitful returns.[1] It was during this epidemic that a virus was recovered from a patient who had died in the Fresno General Hospital. This virus was found to be the Western strain of equine encephalitis. Howitt had made several approaches to this problem, but until the discovery of this virus she had not been able to prove that

* Read before the Section on Pediatrics at the sixty-ninth annual session of the California Medical Association, Coronado, May 6–9, 1940.

these cases were related to equine encephalitis.[2] With this lead, careful check-up work was instituted by the Hooper Foundation and is going on even up to the present time. At the starting of this paper there were fifteen cases with positive blood neutralizations, and they form the basis of this review.

When one mentions the term "equine encephalitis," many questions automatically arise. The interest in these will vary with the type of work one is doing. Some of the basic questions that a clinician would like to have answered are: (1) Are we dealing with a new disease? (2) Do human beings contract this disease from horses? (3) How can one differentiate this type of encephalitis from any other form of encephalitis? (4) Is there a specific treatment? (5) What is the prognosis, and are there many residuals in this type of disease? (6) Is cross-infection between human beings common?

LITERATURE

In approaching the first question, Are we dealing with a new disease? it might be wise, very briefly, to cover the historical highlights pertaining to this virus. This does not seem to be a new disease. Similar cases have been known to exist in horses as far back as 1847,[3] going under such names as "blind staggers," "nonpurulent encehpalitis," "forage poisoning," etc. In 1933, Ten Broeck and Merrill reported a virus very similar to the one recently found in the San Joaquin Valley,[4] but to be different in its neutralization properties. Their virus has become identified and is now known under the name "Eastern strain" of equine encephalitis. This seems to be identical with the so-called "Western strain," except that it has distinctly separate neutralizing properties in the laboratory. The strain that was recovered by Rosenbusch in 1934 in Argentina has now been proved to be identical with the Western strain. Similar viruses have also been reported in Venezuela and Russia. So at the present time we are apparently dealing with these two strains, the Eastern and Western. The virus, itself, conforms to the usual characteristics of viruses in general. It is very active and can be transmitted in dilutions up to one to one-hundred million. It is capable of bringing about a strong immunity in laboratory animals. It seems to be distinctly neurotropic in type, in the sense that it will multiply in non-nervous tissue, but has a property of attacking nervous tissue.

It has been suggested also that the term "equine encephalitis" is erroneous and that it might better be called "avian encephalitis." This is due to the work of Gettner and other observers in this country who have found that ducks, geese, hawks, blackbirds, pheasants, and pigeons are susceptible. It is possible that birds do act as a host reservoir of the disease.

TRANSMISSION

Question number two, pertaining to whether or not human beings contract this disease from horses, is very difficult to answer. Plotting the mode of spread of this disease, one is immediately impressed by the likelihood that a vector must be involved somewhere in the process of these various epidemics. Transmission of the disease from horse to man has never been proved, although these human cases always appear in localities where there is a high incidence of encephalitis among horses. We are not aware of any high incidence of disease among members of the bird family at the time of these two epidemics in the San Joaquin Valley. However, one laboratory worker did contract the disease and followed the typical clinical course while she was working with the virus in the laboratory. At autopsy, the virus was recovered from the patient's brain, but the mode of infection of this patient could never be established. She was only one of over a hundred who have been working with this virus for some time, and there never has been a duplication of her unfortunate experience.

Various theories have been advanced as to the mode of spread. Murphy[5] had a series of cases and made a careful study of the terrain of the region in which this epidemic occurred. In every instance where a new case appeared, it was in an area of low terrain, suggesting the possibility that the vector was one which, such as the mosquito, might be impelled by wind. However, no definite proof has been established that the mosquito is the specific vector. Experimentally, the mosquito can be infected and transmit the disease to laboratory animals and horses. Seven varieties of mosquitos are known to possess such ability for the Western strain and two for the Eastern strain. However, to date, no one has so much as even found an infected mosquito in the areas where equine encephalitis was present.

ANALYSIS OF CLINICAL MATERIAL

In the series of cases reported in this paper, only five had possible exposure histories. Two men were dairymen, one was a butcher, and two lived within short distances of slaughterhouses. This is, of course, somewhat suggestive, but other than that we could find no connection between the disease and the horses. In no instance have we been able to prove that there was a sick horse on the place at the time of the individual taking ill with encephalitis, although the general incidence of encephalitis in horses was very high at the time. Apparently, then, we have no established connection between human beings and horses at the present time.

Before attempting to discuss the differential diagnosis, I shall make an analysis of the fifteen cases studied and bring out, if possible, any clinical sign or symptom of practical value, and omit such laboratory procedures which are so complicated as to lose their immediate clinical help.

SYMPTOMS

In going over these cases a somewhat different course was followed than is usual in case-review work. Of course, the histories were scanned repeatedly, and what seemed to be salient data was recorded. After that I contacted the resident staff

on this service, and by discussing the encephalitis problem as a whole with them, I feel that I have their reactions and feelings as regards this particular type of disease. The nurses' notes and progress notes were gone over in detail. So, rather than list out each case and chart with the symptoms that presented themselves in the various cases, I am going to try to summarize the data obtained. In the first place, the onset seems to be very abrupt. Patients do not become ill gradually, but within the course of a few hours will usually develop a very severe, persistent, and tense headache. This seems to be the initial symptom. All through the charts and the complaints of the patient this was the outstanding presenting symptom. The headache did not seem to subside, day or night, nor did the usual doses of salicylate have any effect upon it whatever. In patients who died, it persisted until the time they became unconscious, and where they recovered the headache subsided as the disease subsided. Headache seems to be the first symptom to come and the last symptom to leave.

The next symptom was fever. In most instances it started out at about 103 degrees and varied, depending upon the course of the disease. However, the type of temperature in general was a sustained curve, the maximum fluctuation being about one degree during the twenty-four hours. In the fatal cases the temperature rose to higher levels and remained extremely high. In the cases that improved, the temperature left by lysis. The most striking thing, and perhaps the most important to a clinician, is that, in going over these cases, most of them seemed to be very spastic, that is, there was a generalized rigidity of the muscles of the arms and legs. This was especially true of the fatal cases. Patients fatally afflicted also seemed to be early very restless with the disease. They would pick at their clothing and, in many instances, the nurses reported that they were quite irrational and hard to restrain. Convulsions were not numerous, but occasional and of short duration. They were inclined to be the unusual, rather than the usual picture. There was nothing of note in the pulse or respiration other than it parallelled the temperature curve.

One symptom, which I am sure is not distinctive of this disease but was found so consistently that perhaps it will bear mentioning, was that in almost every instance rather vigorous treatment was necessary to the eyes. There seemed to be considerable accumulation of secretion almost to the point of purulent discharge, and while nothing was said on the progress note nor did the patients ever complain of it, I noticed that in almost every instance considerable treatment had to be given to the eyes.

Some further points about the cases are: All fifteen patients were males, and the age varied from twenty months to sixty-six years. In general, the young adult age group prevailed. Neurologic reflexes were varied and bizarre: they would change from hour to hour. The general impression was that there was nothing reliable in them except that they confirmed a meningeal irritation. I believe the most reliable single reflex was the absence of one or more of the abdominal reflexes. The spinal fluid was usually under pressure, although it was not measured. In two instances there was a very large amount, as much as 50 to 75 cubic centimeters being drained away. In general, however, there was a moderate amount of fluid. The cell count varied greatly. However, you might say that the cell count was low, being between 40 and 200 cells. Differential counts were of little help except that lymphocytes usually predominated. All spinal fluids had negative cultures.

DIAGNOSIS

The admitting diagnosis in eleven of the fifteen cases was either encephalitis, poliomyelitis, or meningitis. Four cases were mistaken and had a tentative diagnosis of lower left pneumonia, once; acute pericarditis with mitral heart disease, once; lower left pneumonia in pyelitis, once; and typhoid fever, once. The final diagnosis agreed in every case up to the point that we were dealing with some type of encephalitis. In general, they seem more acutely ill than do the patients with the St. Louis type of encephalitis. However, it seems that, in the light of our present information, these cases present no differentiating point other than these possibilities. Apparently the spinal fluid is not of any help in the differential diagnosis.

PROGNOSIS AND RESIDUALS

Coming to the question of prognosis and residuals. In the cases reported, two of the patients are dead. In one instance the virus itself was recovered. Of the patients that lived, recovery seemed complete, except that two patients complained of generalized weakness for a short while. They had no other complaints. There was one patient that lived who shows a very marked amount of permanent damage. This child now presents the picture of a spastic paraplegia with marked mental degeneration and several attacks of epilepsy daily. In the series there were twelve complete recoveries, one patient with rather marked residual symptoms, and two patients who are dead.

In going over the next question, regarding cross-infection among human beings, one might summarize that best by saying that, to date, these cases are considered as highly contagious for obvious reasons. However, I have been unable to uncover any in the literature, nor was there in this series a single case of cross-infection among human beings. In many instances contacts were most intimate for several days prior to admission, but apparently no cross-infection has taken place. So, it would seem that one would be fairly justified, at least, in reassuring the other members of the family and thus lessening the element of panic as much as possible.

IN CONCLUSION

A review of these fifteen cases is made with the sole purpose of sifting out something that could be of some use to the clinician in diagnosing and

handling of this type of case. It seemed that it might be worthwhile to do this, even though we know at the very beginning that most of the information is going to be of negative nature. The subject at the present time is quite popular and is causing considerable discussion. Therefore, at the best it seems that all we can offer at the present time is that one might become suspicious of equine encephalitis when the onset is unusually abrupt, accompanied by severe headache, and especially when there is a generalized spasticity of the muscles of the extremities. All of the proved cases that have occurred in the region of the San Joaquin Valley have been well up until the onset of this illness. It did not seem to come on gradually. The course of the disease seems to be comparatively short and the mortality rate seems to be reasonably high. To date there has been no proved vector, and there has been no proved case which was transmitted directly from the horse to the human being, and so far the likelihood of cross-infection among members of the families seems to be remote. Therapeutically, nothing has been offered.

I should like to express my appreciation to Beatrice Howitt of the Hooper Foundation for the kind way in which she supplied the reports of the neutralization tests to me. It was through her reports and the records of the Fresno General Hospital that data for this paper were obtained.

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ALLERGIC ECZEMA OF INFANCY AND CHILDHOOD: APPLICATION OF SKIN TESTING*

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"SKIN TESTING" may be defined as "a search for the identity of proteins causing clinical symptoms in a disease resulting from a sensitivity to those proteins." By the same token, "allergic eczema" may be defined as "a skin manifestation of this protein sensitivity." Within these strict definitions it becomes possible to discuss the application of skin testing as a practical and valuable procedure.

As with any test, the reliability of skin testing depends, to a great extent, on adherence to proper principles and proper technique. These merit some discussion.

COMPLETE TESTING NECESSARY

The diet and the environment even of the newborn are infinitely complex. From the moment of birth, and even *in utero*, the infant is exposed to numerous proteins. The breast-fed infant, to the proteins in the mother's diet, the bottle-fed infant, to the proteins in its formula, to the wool of the blanket in which it is covered, to the face powder of the nurse who tends it, and to the pollen in the air at both hospital and home. As the infant grows older the diet and environment become more and more complex. It follows that success in the search for specific causes of allergic symptoms will be measured by the extensiveness of that search.

CARE IN THE TECHNIQUE OF TESTING

Each test protein must be carefully protected from contamination by other proteins; otherwise, false positive reactions will be frequent. Experiment shows that once a syringe has contained egg white, no amount of rinsing will make the syringe biologically clean unless the rinsing solution actually destroys the egg-white protein. The ordinary boiling of sterilization is ineffective. It is necessary between each test to clean glassware with acid-cleaning solution, and metal parts, such as needles, with strong alkali to actually destroy the contaminating proteins.

INTRADERMAL VERSUS SCRATCH TESTING

As will be brought out later, safety, accuracy and efficiency demand that every patient must first be tested by the scratch or puncture technique. Thereafter, the intradermal test may or may not be necessary.

APPARENT DISCREPANCIES IN THE RESULTS OF SKIN TESTING

All tests may be negative. Obviously, protein skin tests will not determine the cause of contact

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dermatitis, seborrheic eczema, or fungous infections. Completely negative skin reactions, therefore, call for a reconsideration of the original diagnosis, for in our experience only 5 per cent of 138 cases of allergic eczema have consistently given completely negative reactions. If, however, the diagnosis is certain, a retest at a later date is indicated, for often the completely negative test in a definitely allergic individual indicates a temporary anti-allergic state.

Completely negative skin tests may also result from testing a too restricted number of proteins.

All tests may be positive. This may be due to urticaria factitia, or to contamination of all the test sites, including the blank control, by one or more proteins to which the patient is highly sensitive.

Negative reactions may occur to proteins which are known to cause clinical symptoms. The use of inactive test proteins or an anti-allergic phase to a particular protein may explain this result.

Positive reactions may be of no clinical significance, despite the most careful technique. Since in a given patient these reactions are generally of a lesser degree than those that do have clinical significance, they will be discussed in relation to the interpretation of the skin test.

INDICATIONS FOR SKIN TESTING

A thorough and searching history may make the cause of symptoms so obvious that dietary and environmental control is readily accomplished without resorting to the skin test. For example, 286 cases of allergic eczema were seen in the out-patient department of the Los Angeles Children's Hospital. Of these only 70, or 24 per cent, were referred to the Allergy Clinic. Presumably, the greater proportion of the other 76 per cent were satisfactorily controlled without skin testing. With these we are not here concerned. The cases that justify the time and effort necessary for proper skin testing are the ones that are not satisfactorily controlled by ordinary clinical methods.

INTERPRETATION AND APPLICATION OF RESULTS

About 10 per cent of allergic patients show a three- or four-plus reaction by the scratch or puncture test, and such reactions are practically always infallible clues to the cause of symptoms. The negative, the one-plus, and the two-plus reactions, on checking by the intradermal test, give three- and four-plus reactions in about 66 per cent of patients.

On the assumption that every protein that gives a positive reaction is harmful, and that the larger the reaction the more likely is this to be true, there is a logical and practical method for the solution of the most complex case. Assuming, for the sake of simplicity, that we are dealing only with food protein sensitivity, then every positively reacting protein is removed from the diet for at least six months. At the end of this time, one offending protein is given in moderate amounts for a week. Provided symptoms do not recur or are not aggravated, another offending protein is added to the diet. Adding a protein to the diet for a week permits the detection of any accumulative action or of a breakdown in tolerance. By consistently follow-this practice new tolerances and sensitivities may be uncovered without undue delay or harm to the patient.

The object of this manipulation is primarily to determine the cause of symptoms; but of almost equal importance is the fact that it can be done without dangerous dislocation of nutritional needs and without too great a strain on domestic efficiency and maternal tranquillity. These are important, for if they are disturbed, coöperation becomes poor, and in a chronic ailment such as allergic eczema prolonged coöperation of the parent is essential for success.

Allergic eczema is often the result of sensitization not only to foods, but to other substances such as pollens, hairs, feathers, orris root, and similar sources of protein. If this is forgotten, then the most careful dietary manipulation, whether based on skin tests or trial and error, will be fruitless. Thus in sixty cases of allergic eczema in which one could be definitely certain of the etiology, although 40 per cent were caused by foods alone, there were 20 per cent caused by pollens alone, 11 per cent by epidermals alone, and in the remaining 29 per cent, foods, pollens and epidermals in various combinations shared equally in importance as the cause of symptoms. This again emphasizes the necessity for complete and exhaustive testing.

From the results of skin testing, one may choose safe substitutes in arranging new diets. For example, if cow's milk causes eczema, the skin test will determine whether goat's milk or a soy-bean preparation may take its place without subjecting the patient to the risk of diet trial. In the same way, as it becomes necessary to enlarge the scope of a child's diet or environment, one may by means of the skin test learn beforehand what is to be avoided.

THE VALUE OF SKIN TESTING

The allergic infant or child, regardless of the method of treatment, generally becomes well of his eczema, but later develops respiratory symptoms. Extensive lichenification and thickening of the skin, fungous infections, pyoderma, contact dermatitis, dermatitis medicamentosa, etc., often retard healing, complicate treatment, or produce irreversible changes in the skin. These make difficult any attempt to evaluate the results of treatment based on skin tests or any other method. The skin test makes possible the avoidance of the irritating allergic factors, but the eczema will not clear until complicating factors are recognized and properly treated. Nevertheless, in eighty-six cases chosen for their refractoriness prior to skin testing, fifty-eight cases, or 65 per cent, obtained a good result; eighteen cases, or 21 per cent, obtained a fair result; and ten cases, or 12 per cent, were not helped.

CONCLUSION

In conclusion, if the diagnosis is correct, if the skin testing is properly done and its limitations ap-

preciated, if the results of the tests are intelligently, diligently and patiently applied, if the course of the symptoms is carefully watched and preconceived ideas avoided, the protein skin tests are a highly efficient method for the diagnosis and control of allergic eczema.

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CHRONIC GALL-BLADDER DISEASE*

PREPARATION OF THE "BAD RISK" PATIENT

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BEFORE discussing the preparation of a "bad risk" patient, we must have some understanding of the meaning of the term. The patient believed by one surgeon to be a poor operative risk may not be so considered by another with more experience and sounder surgical judgment. This situation is not serious, but a reversal of the two viewpoints might easily prove tragic. As a rule the "bad risk" patient may be said to be one whose general condition or some specific additional disease makes surgery especially hazardous.

All of us would agree that certain patients are bad risks—for example, the elderly patient with a poor cardiac reserve. Although age alone does not necessarily constitute a bad risk, its combination with heart disease may prove so serious that surgery is not warranted. In fact, any patient of any age with definite myocardial damage and decompensation is a poor risk. The obese patient, too, regardless of age or cardiac output, is a poor, perhaps even a bad risk. These patients should be made to reduce in weight before surgery is attempted. Also to be considered in this category are patients with renal or cardiorenal disease, diabetes, secondary anemia, hyperthyroidism, jaundice, pulmonary disease, and those who for any reason are losing weight. In addition, we have heard, and shall hear more, from those here this morning about the deficiency of the liver which constitutes a bad risk not only in surgery of the gall-bladder, but in any other major surgery.

EVALUATION OF SURGICAL RISK

It seems evident from the foregoing that, in order to evaluate the surgical patient properly, a careful history must be taken and an extensive physical examination, as well as certain indicated laboratory studies, must be done before surgery is contemplated, unless the surgical lesion is such an emergency that the other aspects of the case must be discounted. Chronic disease of the gall-bladder seldom, if ever, constitutes an emergency. The preoperative preparation of the patient for surgery of the gall-bladder, as for any other major surgery, is just as important as the technical procedure itself; sometimes it is more important. Time for the proper preparation of the patient is, in my opinion, the greatest element in successful surgery of the gall-bladder. It is impossible, however, to outline detailed plans for preparation before operation which would be applicable in every case. No two cases are alike and each must be evaluated so that the correct treatment can be instituted for each patient.

It is in handling of bad risks that the teamwork between the internist and surgeon comes into play. If a patient has cardiac damage and associated disease of the gall-bladder, for example, there is no reason why he must go through life suffering from the troublesome gall-bladder. That such cases are far from uncommon is indicated in a recent article by Breyfogle,[1] who reported that disease of the gall-bladder is definitely associated with diseases of the arteries and muscles of the heart, and contributes to death from the latter ailment. He analyzed 1493 consecutive autopsy records and found 162 cases in which the primary cause of death was considered to be heart disease; in seventy-nine of these, disease of the gall-bladder also was found. In addition, he reported the association of heart disease in 20 per cent of 363 cases of disease of the gall-bladder, which he studied. Recently two patients, who had had known heart disease for a good many years, were operated on here for disease of the gall-bladder. The attacks of cholecystitis had become so frequent that their lives were miserable. These patients insisted that something be done, each saying that he preferred to die from the effects of the operation rather than to continue to live in such discomfort. Each was prepared for operation, with the close coöperation of an internist, by a similar régime—rest in bed, digitalis, and a high caloric, high vitamin diet with fortified fruit juices in order to store up an extra amount of glycogen in the liver. After two weeks of such preparation, cholecystectomy was performed without particular difficulty. These patients were operated upon under ether anesthesia and with the use of a straight transverse incision. This is a technical point well worth considering for patients in whom some pulmonary or cardiac difficulty may be anticipated following surgery. Pain in such an incision is much less than in the rectus incision. Because of this there is not the splinting of the upper abdomen and lessening of the excursion of the lung. In other words, the patient can breathe normally and aerate the lungs without pain.

OTHER EXAMPLES

The patient with chronic disease of the gall-bladder, as well as severe impairment of renal function, has a very serious handicap. Surgery must be postponed until renal function becomes as nearly normal as possible. Rest, diet, and fluids may, after a week or two, greatly improve the function of the kidneys. If there is any obstruction to the urinary outflow it must be corrected before operation upon the gall-bladder is undertaken. Urologists have taught us much about renal deficiencies in their work of preparing aged patients for urologic operations.

The combination of myocardial damage and renal insufficiency in connection with disease of the gall-bladder constitutes a dangerous situation requiring the most careful evaluation to determine whether the patient should ever be subjected to surgery

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of the gall-bladder. If surgery is decided upon, several weeks or months of preparation will be required. In these cases also, preoperative preparation consists of rest in bed, a diet which includes high caloric fruit juices, fluids, digitalis, and careful and repeated checks on the function of the liver and the kidneys.

The patient who has severe diabetes in association with chronic disease of the gall-bladder should not be operated upon until every attempt has been made to get the diabetes under control. The diabetic patient, likewise, requires the closest coöperation between the surgeon and the internist, not only in preparing the patient for surgery, but also in directing his treatment following operation. The plan outlined for such a patient depends, of course, upon many factors, such as the age of the patient, the severity of the diabetes and the extent of the associated deficiency of the liver.

Before operation is performed on the patient with chronic disease of the gall-bladder and secondary anemia, the blood must be brought within normal limits, either by the use of one of the iron and liver compounds, or by blood transfusions. Transfusions are used much more frequently than they were in the past, and rightly so. During the time of such preparation, the store of glycogen in the liver can be increased by a high caloric diet rich in carbohydrates.

The patient who combines hyperthyroidism with chronic disease of the gall-bladder should have, by all means, the hyperthyroidism treated first; that is the rule and the practice in our clinic. After the hyperthyroidism has been controlled, usually by subtotal thyroidectomy after a period of preparation including rest in bed, the administration of Lugol's solution, phenobarbital and a high caloric diet, the patient will be able to undergo abdominal surgery with much less danger of a postoperative crisis. We have seen several such patients in our clinic, in some of whom the hyperthyroidism was not diagnosed until after entry to the hospital.

Patients with chronic disease of the gall-bladder associated with jaundice and marked hepatic damage, and all the complications which may be present, are very poor risks. I shall not enlarge upon this aspect further, as it will be discussed by other speakers on this program.

TESTS OF LIVER FUNCTION

It is impossible to urge too strongly the use of the different tests of liver function to determine damage to the liver. Any such test—Rose-Bengal, glucose, or any of the others—which will give adequate information, is well worth while. There is, however, a great need for a more adequate test of liver function. One or more such tests are routine in our clinic. If such a test shows marked damage to the liver, every attempt is made to improve the condition of the liver before operation. Time, rest, fluids, and glucose are very important to such a patient. The test should be repeated and surgery should be postponed until tests show the liver function to be within normal limits.

I am certain that we are all advising surgery earlier for our patients with gall-bladder disease, with better end-results. In connection with preoperative preparation, it likewise lowers operative risk. In most instances preparation of the patient can be carried on at home instead of in the hospital, thus reducing the cost of medical care.

OTHER PROCEDURES

We feel, as most medical men do, that it is perfectly possible for the patient to take an adequate amount of glucose by mouth, provided he is not nauseated. For example, he can easily take as much as 200 grams of sugar daily in fruit juice. We prefer to leave the intravenous method to be used following surgery.

COMMENT ON THE LITERATURE

A study of the literature indicates that the management of chronic disease of the gall-bladder has improved tremendously during the past ten or fifteen years, as shown by the reduced mortality rate. Our own figures show a reduction of almost 9 per cent. During the past nine years we have done some 317 cholecystectomies, with a mortality of one per cent plus, as contrasted with the previous period of nine years, when the mortality was around 10 per cent. The reasons for this are several. Better coöperation between the surgeon and the internist assures better preparation of the patient before surgery and selection of the proper time for the operation. Let me emphasize again that time is perhaps the greatest factor in the preparation of the poor-risk patient. There has been, as well, improvement in the anesthetic used and in the technical procedures. So simple a measure as the administration of glucose, though valuable, certainly should not receive all of the credit for the improvement in mortality statistics.

SUMMARY

Suggestions are made as to the preoperative preparation of the "bad risk" patient with chronic disease of the gall-bladder, to make operation less hazardous. Since there is so much individual variation in these cases, no hard-and-fast rule for such preparation can be laid down. Special points in regard to diet, vitamin and drug therapy are not included in this paper, as they are discussed by other speakers in this symposium.

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SINUS INFECTIONS: THEIR RELATIONSHIP TO RESPIRATORY DISEASE*

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SINUS infection is present in a great many respiratory diseases. It is often the most important etiologic factor.

Griffiths [1] reports a series of 5,000 cases in which the incidence of sinus infection was 385. Many of

* Read before the Section on Eye, Ear, Nose and Throat, at the sixty-ninth annual session of the California Medical Association, Coronado, May 6–9, 1940.

these cases showed secondary chest infections and persistent symptoms of intractable cough. Kerley [2] has reported the presence of demonstrable sinus disease in 133 cases out of 173, patients presenting themselves with acute respiratory infection. Kern and Donnelly [3] report as high as 62 per cent demonstrable sinus infection in asthmatic cases.

The above represents a rather large percentage of involvement of cases quoted. It is my belief that there is an even greater number of cases in which sinus infection is the responsible factor.

ANATOMICAL AND HISTOLOGIC CONSIDERATIONS

There is a normal connection between the nasal sinuses and the chest through a network of lymphatic vessels and the glandular system. This has been proven by various experiments; such as, the installation of dyes, carbon black, India ink, etc., into the sinuses of living animals. Their distribution follows a definite pathway; the antra and frontal sinuses draining into the upper and middle deep cervical glands, submaxillary glands, tonsils and bronchial glands. Main drainage of the antra and tonsils is into the glands of the hilum, and thence into the entire bronchial tree.

The histologic structure of lining of the sinus membranes is of such a nature that it becomes easily infected. The goblet cells and basement membrane undergo consecutive pathologic changes, with or without regeneration, depending upon the acuteness or chronicity of the disease, as has been demonstrated by Semenov,[4] and many others. Many prominent authorities make the statement that the normal histologic sinus membrane is unknown except in very small children.

Bacteriological studies by Turner and Loew,[5] Dochez [6] and others have shown that 85 per cent of nasal cultures of infants at birth are sterile; but that after the first feeding, multiple types of bacteria are found in the nose and nasal cavities. However, the lining membrane of the sinuses remains normally sterile until some condition intervenes which lowers the resistance of the membrane to infection. It has been shown that the greater majority of individuals have more or less persistent, ever-present pathologic changes in their sinus membranes.

PATHOLOGY

Although we are all familiar with the usual pathologic changes found in the nasal membranes in sinus disease, attention is invited to a few specific conditions found there. In subacute and chronic infection there is a destruction of cilia and goblet cells, to a greater or lesser extent, depending upon the severity and length of the infection. Goblet cells become smaller and fewer, and cilia become less or disappear. The basement membrane becomes thickened and shows an increase of connective tissue. Imbedded in this membrane are found colonies or inclusion nests of bacteria. These bacteria may be surrounded by cell products of a chronic inflammatory process; such as, cell débris and white blood cells. It is to these so-called nests or inclusion bodies that attention is directed.

The lymphatic glands are likewise subject to these chronic inflammatory changes and, of most importance, also have inclusion nests of bacteria present. In old cases these nests may have a giant cell nodular appearance similar to a tubercle. These nodes may be partially calcified, as is the tubercle in an old arrested case of pulmonary or glandular tuberculosis.

Cell débris may be present in the sinuses. The absence of pus is not of itself proof that there is no infection present. Polyps, mucoceles, and the various types of epithelioid tumor masses may be present. Small cysts may be found grossly or microscopically in the membrane of the sinuses. In all of these there are demonstrable pathogenic organisms present.

BACTERIOLOGY

Most all known bacteria are to be found in the sinuses of man. The ones of the most frequent occurrence are the various forms of streptococci, staphylococci, pneumococci, colon bacillus and influenza bacillus. In chronic infection there is a predominance of streptococci, and it is these bacteria that are responsible for most of the chest complications occurring with, or, as sequelae to, sinus infection.

Turner and Loew [7] have described a type of staphylococcus, termed chromogen 6, which they thought was the organism most frequently found in suppurative sinus disease. They found this group of bacteria to have an elective affinity for the mucous membrane of the upper respiratory tract and nasal cavities.

Meyersburg,[8] et al., describe as the causative organism the fusiform bacillus and spirillum of Vincent, found present in cases of suppurative chronic sinusitis and rhinitis caseosa.

Sewall [9] states that there is a filterable virus present in rhinosinusitis which activated the common pus-forming bacteria and sensitizes the individual.

ETIOLOGY

Just why one individual out of several that come in contact with the infectious organisms should develop respiratory disease presents the age-old, interesting question. Nearly everything in the realm of medical knowledge has been given as the cause. We recognize many predisposing etiologies such as climatic changes, environment, preëxisting diseases, diet, metabolic changes, and abnormal anatomic and physiologic conditions present.

Price [10] states that degenerative types in Pemhurst State School, because of abnormal vasomotor and endocrine disorders, were much more susceptible to respiratory infection than normal types.

Farmer [11] has pointed out that the large amount of histamine released during allergic attacks causes certain organic reactions in the walls of the blood vessels and in the smooth muscles, thus paving the way for infection.

Also, to be mentioned are the change in acid ion concentration and other biochemical changes that take place in the tissues of the infected individual.

The immediate cause of the respiratory infections is, of course, the pus-forming organism. It

has been stated by Sewall,[12] Carmody,[13] and many others, that recent colds are caused often by acute activation of old remote infections from residual germ-nests in chronically infected sinuses.

Just what is the agent that renders the individual acquiring a respiratory infection susceptible to the invading germs is a question that has not so far been answered satisfactorily, unless we accept the virus activator theory.

Recently there has been a great deal of work done in the study of tuberculosis. Briefly, investigations from many sources have reported that they have found within the tubercle of an individual, who has had or is suffering from tubercular infection, a substance that they have termed tuberculo-protein. This has a definite chemical structure and has been produced by pharmaceutical houses, and it is now available to the profession in the form of a purified protein derivative that is used for tuberculin tests. Tuberculo-protein has been isolated from the calcified nodes of individuals who have arrested cases of tuberculosis. It has been found in lesions anywhere which have been caused by tuberculosis, no matter whether arrested or not. All tubercular tissues contain protein bodies which are given off into the blood stream of the patient.

Persons who have inactive or active tuberculosis have an allergic reaction to tubercular protein. This may be due to the antigenic reaction caused by some of these proteins. Two water soluble proteins have been isolated from the tubercular bacillus, one acting like tuberculin. One other protein has been isolated that is devoid of tuberculin properties.

I would like to submit this purely speculative reasoning: that there are also bacterial proteins given off into the blood stream from inclusion nests and infected membranes containing other pathogenic organisms; that these proteins may act as sensitizing or activating agents; that these proteins may themselves be allergens or, if not true allergens, act as activating agents for other allergens; that the presence of these bacterial proteins in the blood-stream increases the susceptibility of the individual toward new respiratory infections or exacerbation of the old.

There is no definite bacteriologic or biochemic basis to support these contentions. There is, however, a clinical basis for some of this reasoning.

Patients do recover from chronic respiratory infection when the sinuses are drained or infected membranes are removed and autogenous vaccine administered. What exact rôle the vaccine plays is in question. We have learned that autogenous vaccines do contain antigenic substances which are many and complex in form.

Is the benefit from vaccine obtained because of the desensitization that can be attributed to the presence of these antigenic substances in the vaccine?

Little is known at present about the complex chemical structure of the streptococci. It has been determined, however, that some have a carbohydrate, a nucleoprotein that is antigenic and, as far as is known, some inactive elements. Also, in some streptococci the carbohydrate plus the protein is antigenic, and in some it is not.

It is interesting to question whether or not other protein or carbohydrate bodies from other bacterial sources do act as synergists or activators to the streptococci or cause production of antigenic substances by the germ.

DIAGNOSIS

There is no need to dwell at length upon the usual methods in use by competent rhinologists. Special care should be exercised in securing good x-ray pictures of suspected sinuses. The use of lipiodol is of great help in outlining the contour of the sinuses and demonstrating the filling defects found in the presence of a tumor mass or thickened membrane.

Diagnostic lavage plus culture of the contents will aid in identifying the offending organisms. In this connection I have had best success with a brain blood broth culture. Many varieties of streptococci do not grow well on ordinary media.

Bacterial skin tests are not of much value. The streptococci, with the exception of erthroprotein of scarlet fever, do not cause skin reactions usually.

Tuberculin skin tests are of value. A positive test may mean that there are tubercular foci present which are giving off specific allergens into the blood stream.

The history of onset, character of symptoms, amount, kind and frequency of discharge, etc., are of great value in determining the acuteness or chronicity of the disease.

If an allergic basis for the disease is suspected, the various food and other allergic tests should be carried out.

TREATMENT

In acute cases no surgery should be done until the infection has quieted down. Much damage may be done and many complications ensue because of hurried, inopportune surgery. Time must be given for nature to set up defensive barriers before undertaking surgery in the vast majority of cases. There are exceptions, as in cases of acute fulminating empyema of the frontal where drainage cannot be secured by the usual nonsurgical methods.

Sinus surgery in children should be rarely performed. I do not believe in tonsil and adenoid removal during the course of an acute infection. In chronic cases or subacute cases, the tonsils and adenoids are often the site of residual infection and should be completely removed.

It has been stated that people with normal noses do not contract sinus disease. I believe this is essentially correct. Nasal abnormalities should be corrected. It is my opinion that the submucous resection, properly done, is one of our most valuable operations. Many times a seemingly intractable respiratory infection is cleared up by securing proper drainage and areation of the nasal passages. To be of benefit a submucous resection should remove all the obstruction and not be a button-hole operation. It takes time and great care to do a successful submucous.

When the antra are chronically infected and have thickened membranes or tumor masses present, I believe in thorough removal of these membranes through a sublabial incision. Intranasal openings are not sufficient. In pansinusitis the transantral-ethmoid operation is the one of choice.

I dislike the term radical. We should consider sinus surgery in terms of other surgery. We do not speak of a radical appendectomy or cholecystectomy. When diseased tissue should be removed, it should not be termed a radical operation. Instead, it should be explained as a necessary operation.

I have had some small success in using an autogenous vaccine made from the culture of the tissue removed. The best results have been with vaccine made by the method described by Dimmit[14] for streptococci material. This vaccine presumably contains more antigenic factors than those made from agar cultures. It should be given in very small doses, always keeping below the reaction threshold. This is in accordance with the theory of desensitization. Reaction doses destroy the antiallergic factors developed in the system.

All cases of sinus disease in respiratory infection do not call for surgery. A large percentage of cases will respond to local treatment, tissue shrinking solutions, lavage by Proetz method, or otherwise.

We are all familiar with the necessity of proper climatic conditions, food, correction of general physical defects, etc.

If a given case has a positive tuberculin reaction, antiallergic treatment with "Old Tuberculin," using very small doses, is of benefit.

It is a mistake to assume that any vaccine or protein injection treatment will cure the sinus infection unless proper drainage has been obtained and foci of infection have been removed.

I have not had sufficient experience with the deep therapy treatment of sinus disease to be able to express an opinion as to its benefit. The rays are thought to cause formation and liberation of certain proteins into the system. These act as antigenic substances. This resembles the action of vaccines. How true this is, is a question at this time. Much remains to be done to increase our knowledge of the chemical structure and characteristics of bacterial and tissue proteins.

SUMMARY

Infections of the nasal accessory sinuses are important etiologic factors in respiratory disease. The pathway of extension is by means of the lymph and glandular systems. Are the bacterial proteins, known as allergens, activating agents? Treatment should include restoration of normal breathing space, removal of infected material and supportive measures.

CONCLUSION

The duration of respiratory disease can be shortened by treatment of the infections present in the nose and throat.

A conservative attitude should be held in regard to surgical procedures in children.

Surgery should not be attempted in acute fever stage of nasopharyngeal disease. Surgery, when performed, should be directed toward the removal of all infected tissue.

923 Security Building.

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PRIMARY REPAIR OF TENDONS*

STUDY OF END-RESULTS IN TWO HUNDRED AND SEVEN CASES

By MARTIN DEBENHAM, M. D.
San Francisco

THE increased incidence of injuries involving severed tendons, in both industrial and automobile accidents, justifies a survey of the whole subject of primary suture of tendons. A second and more important justification is the fact that almost all severed tendons are seen first and usually sutured by general surgeons.

A review of the literature impresses one with the paucity of articles on primary suture, and with the fact that most writers approve of primary suture in only strictly limited cases. Thus, Koch says: "Immediate repair of divided tendons and

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nerves is justifiable if the wound is a clean-cut wound, made by sharp instruments, if the wounded hand is clean, if the cut is sustained indoors, if the first-aid dressing had been sterile, if the patient is seen within a few (four) hours of the time of injury, and if a well-equipped operating room is available for surgical treatment."

Garlock sets twelve hours as his maximum of elapsed time, and is not insistent that the wound be sustained indoors, so long as it is clean.

END-RESULT STUDIES

End-result studies are particularly lacking as a basis of comparison. Garlock reported eighteen cases of primary suture of the flexor tendons of the hand with 56 per cent good results, and ten cases of early secondary suture with 60 per cent good results. He classified tendon operations as follows:

1. Immediate primary, if done within twelve hours.
2. Early secondary, two to six weeks.
3. Late secondary, more than six weeks.

Eisberg, at the Harlem Hospital, New York, reported a series of forty-nine cases with only 10 per cent poor results. Oswald Muller reported 101 cases of primary suture with 66 per cent cure and only 10 per cent poor results. He feels that even in questionable cases it is wise to attempt primary suture, because he claims the results are no worse than in secondary suture, and may be better.

INCIDENCE OF INFECTION

The principal objection of those who advise against primary suture is that it increases the incidence of infection. Here again there are few statistical studies published. Böhler gave no figures, but said, "If statistics were available as to infection after primary suture, the incidence would be high." Garlock cited the danger of infection as a reason for delay, but gave no figures as to the part it played in his poor results. Eisberg got infection in seven out of forty-nine cases. Three of these he claimed eventually had good function without secondary operation.

Koch and Mason, commenting on the danger of infection, said: "To the patient who has sustained an injury with division of tendons and nerves, the greatest immediate danger lies, not in the fact that function of the tendons and nerves has been lost, but that he has sustained an open wound through which virulent bacteria may gain access to the deeper tissues; and in the manipulation and dissection incident to repair of the injured structures these virulent bacteria may be disseminated widely and with disastrous results. . . . Eighty per cent of our cases healed per primam, 10 per cent were infected (moist wound), and 10 per cent had gross infection."

ADHESIONS

Salsbury said, "In the absence of *virulent* infection, tendons seldom fail to unite if carefully sutured; most unsatisfactory results are due to adhesions." This has been our experience. The impression gained from a study of the reports of careful experimental work by Mason and Shearon, as well as that of many earlier writers, is that the tendon, the sheath, and the surrounding soft tissues all enter into the formation of the scar which finally unites the sutured ends of the tendon. It is inevitable that adhesions occur under such condition.

Nonunion of the Tendon.—Nonunion of the tendon ends is the complication that probably is most feared, but it is least often the cause of a poor result. Many refinements of technique have been suggested to insure union. The placing of the suture in the tendon is important. All agree that it should extend well away from the cut ends, on each side. Kanaval, Humer, and others prefer to have the knots tied adjacent to the tendon rather than between the cut ends, while Bunnell and Lehy employ a suture which brings the knot between the ends. Salomon postulates an "antiheal hormone" in the sheath fluid, and advises removing the sheath and discarding it. It is admitted that the "atraumatic technique" suggested by Bunnell will go far toward insuring union.

OPERATIVE PROCEDURES

No attempt is made here to discuss this subject in detail. Certain general principles are suggested. Preoperative planning begins with a complete diagnosis, including a recognition of nerve injuries.

Because of the cost and ease of administration, local infiltration of novocain is very widely used. Many of these patients are alcoholic, and a strong hypnotic or sedative often suffices. Nerve block is ideal, but often it is difficult to obtain satisfactory anesthesia by this method. When the operative procedure lasts for hours, the surgeon need not feel hurried if a general anesthetic is used.

The use of a tourniquet secures a bloodless field and thus avoids the trauma of sponging and allows better identification of structures. Large bleeders are more easily found when there is no oozing. Harmer, however, feels that interference with the circulation reduces the tissue resistance to infection, and may also lead to postoperative oozing. An admitted disadvantage of the tourniquet is the discomfort it gives the patient if local anesthesia is used. If a tourniquet is used, it should be a pneumatic cuff around the upper arm inflated to 300 milligrams of mercury. In combination with this, an Esmarch bandage or an additional pneumatic cuff around the forearm often will compress the muscle bellies of the involved tendons and force the retracted tendon ends into plain view in the wound.

The type of antiseptic used is a matter of personal choice. Hydrogen peroxide may be used as an aid in "bubbling out" many of the smaller foreign bodies from the depths of a grossly contaminated wound. Because of its penetration, it is thought by some to carry infection into the deeper tissues. The depths of the wound should be lavaged copiously with a gentle stream of normal saline solution. A thoroughly surgical debridement should

remove all devitalized soft tissue before any attempt is made to find the tendon ends.

The proximal cut ends of the tendons are usually the most difficult to find because of the retraction of the muscles. No attempt should be made to pass a clamp blindly up into the tendon sheath. The injury thus done to the sheath and to the mesotendon will be a major factor in postoperative adhesions. Nor should the sheath be opened longitudinally for exposure. This "pernicious longitudinal incision" is the most common cause of "bowstring contractures," especially if infection ensues. Although greatly retracted, the end can be located readily through a small transverse incision into the sheath proximal to the wound. A fine silver wire probe passed up the tendon sheath serves as an excellent guide in making the incision, and provides a means of pulling the tendon back into the wound.

INITIATION OF MOTION AFTER REPAIR

The care of an injured tendon is only begun when the patient leaves the operating room. The problem of postoperative motion involves a balance between the two factors: the strength of the suture line and the formation of adhesions.

Those who advise immediate institution of motion do so because they feel that the development of structure is in response to function. Diering, Barfurth, Rehn, and others, have shown that under the influence of function the nuclei and fibers arranged themselves in rows parallel to the line of the pull, but otherwise remained non-oriented. Rehn further claimed that under the stimulus of function, grafted tissue took on a tendon-like character by metaplasia. Rebbert, however, felt that function plays only a minor part.

Garlock called attention to a general, unfounded feeling among surgeons that "something happens to the suture line between the fifth and ninth days" which makes it unsafe to begin motion until after that time. He has shown that there is a steady increase in the strength of the scar from the first day and that the suture material is of value only during the first three to five days. He further states that because the surgeon cannot gauge the amount of tension, it is unwise to attempt passive motion before the fifteenth day. Active motion within the limits of pain is encouraged by him as early as the fifth day.

These motions need be through only a narrow range and need involve only the distal phalanges of the fingers to prevent adhesions. Meanwhile the wrist joint is immobilized in position to assure adequate relaxation of the tendon to prevent strain on the suture line.

Late initiation of motion must destroy the adhesions which have formed. Its success depends on the strength of the suture line as compared with the adhesions.

AUTHOR'S SERIES

In our series the number of poor results increased in direct proportion to the length of time the tendons were immobilized.

Results According to Site of Injury.

The level at which the tendon is severed is of decided importance in determining the prognosis. The results in our service were precisely those that would have been expected on an anatomic basis.

Laceration of the Flexor Tendon in the Distal Phalanx.

The poorest results were obtained when the flexor profundus tendon was severed in the distal phalanx. This is so because the tendon inserts in the anterior surface of the periosteum of the terminal phalangeal bone soon after the tendon passes beneath its vinculum and distal flexor crease. If it be severed at this level there is but a short stump of distal tendon remaining, and it is fanning out for its attachment. Thus, the technical difficulty of securing end-to-end approximation, with preservation of the normal structural relations, is great.

Laceration of the Flexor Tendon in the Middle Phalanx.

Except where the sublimis slips have their attachment in the anterolateral aspects of the proximal portion of the middle phalangeal bone, the profundus passes through the length of this segment alone. Other factors being equal, it is reasonable to believe that the functional result following repair here should be satisfactory.

Laceration of the Flexor Tendons in the Proximal Phalanx.

End-results in this location are likely to be poor for the following reasons:

1. It is difficult technically to suture the severed, slender, terminal branches of the sublimis in accurate approximation.

2. Occasionally, in inexperienced hands, the suture has included portions of both sublimis and profundus.

3. Adhesions between deep and superficial tendons result, which thereafter permit action of the sublimis only. After flexion of the proximal interphalangeal joint, a "check rein" upon the deep tendon occurs, so that the distal interphalangeal joint may not be flexed. It has been our policy to suture only the profundus tendon in this region, and to excise the terminal slips of the sublimis, thus minimizing the possibility of adhesions.

Laceration of the Flexor Tendons in the Palm.

Although the results following repair of laceration of the tendons in the palm are somewhat better, they may fall short of good function because of the injury and because subsequent repair often results in the loss of the gliding mechanism in that region. The skin, fascia, and fascial septa in the palm are tough structures, fixed at many points and so constructed that there is little or no "give" to them as contrasted to skin and fascia in other regions of the body. Thus, it is the common experience of everyone who has examined hands following the injury under consideration to find a firm, fixed nodule of fibrous tissue palpable at or near the site of injury. This may be felt to bulge or become tense when an attempt is made to flex

the finger. Likewise, the superficial and deep tendons may here, too, become agglutinated and so limit the range of motion of the profunda.

A common and serious injury which may be considered here is that of severance of the flexor pollicis longus in the thenar eminence. This frequently occurs as a result of laceration from broken porcelain water faucets. In turning on the faucet, the "heel" of the hand comes into firm contact with the porcelain. The thumb is flexed for grasping and the tendon consequently is taut. Furthermore, because the thumb is flexed, the point at which the tendon is cut is more proximal than would be the case had the thumb been extended. That is, the tendon has glided distally during flexion, so that any given level on the tendon is further distal, compared with a point on the surface, than it would be with the thumb in extension. Consequently, when the tendon is severed, the retraction of the proximal stump is even greater than it would be because of the contraction of the muscle alone. Since the intrinsic muscles of the thenar eminence are usually macerated at the same time, it is frequently difficult to identify the proximal severed end. Trauma to the delicate synovial sheath may result from instrumental manipulation of the lumen of the sheath during the attempt to grasp the retracted stump. In order to avoid this, we have recently made no attempt to find the retracted end through the original wound. We have a transverse incision over the tendon in the wrist, gently avulsed the tendon through that incision, laid the suture in the tendon end, threaded the loose suture ends up through the sheath on a length of stiff silkworm, and pulled the tendon through into the original wound. This method may be criticized justly. The tendon receives part of its blood supply through the mesotendon, which may be destroyed in the method just described and thus conceivably healing be impaired.

An important, occasionally overlooked, injury occurring at this same site is the severance of the motor branch of the median nerve, which supplies the opponens muscle of the thumb.

Laceration of the Flexor Tendons in the Wrist.

The best results follow suture of laceration of the flexor tendons in the wrist. This is so because: (1) certain of the flexor tendons here (palmaris longus, flexor carpi radialis, flexor carpi ulnaris) are not essential for good function of the hand, although the reëstablishment of their continuity is desirable, and (2) the structures surrounding the tendons in the wrist are more freely movable than those in the palm and fingers.

Laceration of the Extensor Tendons.

Satisfactory function usually follows primary repair of severed extensor tendons for the following reasons:

1. There are no tendon sheaths in this region. Consequently, should infection occur, its results are not likely to be so disastrous (from the standpoint of spread of infection and of subsequent adhesions) as it would be in a region where a synovial space exists.

2. There is little or no retraction of the severed proximal stump.

3. Adhesions about the suture line do not impair the excursion of the tendon because of the structure of the surrounding fibrous tissue which allows a considerable degree of motion without the presence of a "gliding" mechanism.

4. The anatomy of the dorsum of the hand and wrist is not so complex as that of the ventrum, thus simplifying the task of operative repair.

One exception must be mentioned. When the laceration occurs over the dorsum of a joint (especially the metacarpophalangeal joint, which is a common site of injury) stiffness may result.

490 Post Street.

Possible Toll from Mix-Up of Drugs Continues to Mount.—The possible toll from the use of contaminated sulfathiazole tablets appears to be increasing and some seventeen deaths already have been reported which may have been attributable to the use of the contaminated tablets, *The Journal of the American Medical Association* points out in a comment which says:

"From various portions of the United States, records continue to accumulate of human beings who suffered either death or injury from the use of the tablets of sulfathiazole which were contaminated with phenobarbital and which were manufactured by the Winthrop Chemical Company and distributed with the series designation MP and a subsequent figure.

"In its latest warning to hospitals and to the medical profession, the Winthrop Chemical Company says:

"Please examine the mark on every package of our sulfathiazole tablets and return to us immediately for exchange any package marked with the letters MP. If you have dispensed tablets from bottles bearing these control letters, will you kindly endeavor to recover all such tablets which have not been consumed.

"The communities from which have come reports of some seventeen deaths which may have been attributable to the use of contaminated tablets include Allentown, Pa.; Lincoln, Neb.; Farmington, Mo.; Norristown, Pa.; Worcester, Mass.; Palmerton, Pa.; Edenton, N. C.; New Orleans; Louisville; Philadelphia; Tyler, Texas; and Clear Field, Pa. Report of injuries come from a widely distributed series of communities, including primarily places in Massachusetts, Pennsylvania, Kentucky, and Missouri.

"Obviously, it is difficult for a physician to determine whether or not deaths resulting from severe cases of pneumonia or similar serious infections were primarily due to the contaminated drug or to the severity of the condition. For that very reason the American Medical Association, through its Council on Pharmacy and Chemistry, is endeavoring to secure actual case histories of incidents in which fatality occurred so that from an analysis of the group as a whole it may be possible to determine more definitely the part played by the contamination in the symptomatology that developed in these patients.

"No doubt the Food and Drug Administration, which has already issued an official statement on the subject and which has stimulated a great number of inspectors to make first-hand studies of such cases and to secure the return of all of the drug still extant, will eventually make available its own official report on this incident.

"At this time, again every physician is warned to make at once a personal investigation of all sulfathiazole, Winthrop, which he has on hand or which he may have prescribed for his own patients since December, with a view to securing any of the material labeled with the MP designation and returning that, preferably, to the Food and Drug Administration officials for their study."

CALIFORNIA MEDICAL ASSOCIATION

This department contains official notices, reports of county society proceedings and other information having to do with the State Association and its component county societies. The copy for the department is submitted by the State Association Secretary, to whom communications for this department should be sent. Rosters of State Association officers and committees and of component county societies and affiliated organizations, are printed in the front advertising section on pages 2, 4 and 6.

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SEVENTIETH ANNUAL SESSION

California Medical Association Press Comments

The May issue of CALIFORNIA AND WESTERN MEDICINE being in press at the time of this year's annual session (May 5-8, 1941), it is possible to give only brief mention of the proceedings. For members of the California Medical Association who may or may not have been present, the excerpts from reports appearing in the newspapers, and here arranged day by day, may be of interest. In the June issue of the OFFICIAL JOURNAL will appear the address of Retiring President Harry H. Wilson, the minutes of the meetings of the House of Delegates and Council, and other information. Many members in attendance were pleased to state that this year's meeting measured up with the best of former years. Press excerpts follow.

SUNDAY, MAY 4, REPORTS

Doctors to Discuss Military Ailments

State Medical Association Opens Convention at Del Monte

Del Monte, May 3.—California doctors, an estimated 1,500 of them, gathered here once again today to talk over the latest advances in medicine and lay down policies of their profession for another year.

It is the seventieth annual convention of the California Medical Association, which opens officially tomorrow, but actually began today with a series of scientific discussions by special groups within the Association.

Indicative of the changing problems that a changing world forces on the medical profession, the doctors have set aside a considerable part of their five-day program for military medicine. They will hear expert discussion on such special subjects as the physical stresses created by high altitude flying, the psychological problems that present themselves in a military camp, the treatment of war wounds and physical examinations by draft board doctors.

And, keeping up with the dizzy tempo of defense industries and ordinary living itself, the doctors will give considerable time on their programs to industrial medicine and to neuropsychiatry.

For the remainder, the doctors will continue to battle against their old standby enemies—cancer, heart disease, tuberculosis, new operative problems, syphilis.

Affiliated groups holding scientific discussions today were the California Heart Association, California Cancer Commission, and Western Association of Industrial Physicians and Surgeons.—San Francisco *Examiner*, Sunday, May 4, 1941.

MONDAY, MAY 5, REPORTS

Doctors' Defense Rôle Told at Meet

Doctor Wilbur Urges Mobilization to Meet Emergency Needs

Del Monte, May 5.—An appeal for doctors throughout the nation to mobilize for their rôle in national defense was issued by Dr. Ray Lyman Wilbur of Stanford University at today's opening session of the California Medical Association convention.

More than 1,500 doctors from all parts of the nation were present to attend the meet, regarded as one of the most vital in the organization's history in view of the pressing public demands for socialized medicine and the growing demands of national defense.

Doctor Wilbur, president of the California Physicians' Service, organized in 1939 as the medical profession's answer to demands for widespread, inexpensive medical care, also reported on the progress of that association, heralding it as a "complete success and now over the hump."

Population Shifts

Shifting population, due to the national defense "step-up," was described by Doctor Wilbur as providing the medical profession with its greatest problem.

"Thousands of men throughout the country are going to army camps, and many of their families are following them to nearby communities," Doctor Wilbur said.

"These shifts, plus the influx of workers to industrial areas to work on defense jobs, mean that thousands will be seeking their medical attention from doctors hitherto unknown to them.

'Under-Doctored'

"This, plus the fact that many medical men are going into the service, means that certain areas will be under-doctored."

Without making definite recommendations, Doctor Wilbur urged that a study be made to provide for pooling medical services in congested national defense areas.

This tied in with a proposal by Dr. C. A. Dukes of Oakland, made at last night's session of the Western Association of Industrial Physicians and Surgeons.

Training Limited

Pointing out that there was no time to train new medical men in the care of industrial cases, now rapidly on the increase due to defense industries, Doctor Dukes urged that the work be more widely spread among doctors in each area.

"This could be accomplished by taking men especially trained for this work, and placing them as 'area supervisors' to facilitate the induction of the average practitioner into industrial medicine," Doctor Dukes said.

Doctor Dukes said there are no new industrial hazards, but a great many more cases of the old ones, due to untrained workers going into the defense industries.

Service Success

Discussing the California Physicians' Service at general session, Doctor Wilbur revealed that it is financially "over the hump," as far as operating costs are concerned, and that medically the results have been gratifying.

No hardships have been worked on any doctors, financially or in the matter of time involved, he said.

During the first year of operation, twenty-six cases of cancer were treated. Under average medical conditions, these cases, which were handled for the routine payment of $2.50 monthly dues per patient, would never have had medical care, he declared.

† For complete roster of officers, see advertising pages 2, 4, and 6.

Their cost under ordinary procedure would have amounted to at least $6,000, he said.

Enrollment Up

More than 1,600 new patient-members are joining the Physicians' Service monthly, according to Dr. Albert E. Larsen, secretary of the group.

There are at present 27,000 members and about 5,300 doctors, with more than half the total in each group in northern California.

Dr. Harry H. Wilson of Los Angeles, president of the Association, presided at the opening session, which included as speakers, Dr. Robert Loeb, Columbia University; Dr. John H. Musser, Tulane University; and Dr. Waltman Walters of Mayo Clinic, Rochester, Minnesota.

General meetings will be held each morning through Thursday, with scientific sections in the afternoons. Medical films and exhibits will be operated throughout the convention, and 173 papers on scientific subjects have been prepared for presentation.

More Called

"Military medicine is all-important today," Doctor Wilson pointed out. "Already more than 300 California doctors of medicine have been called into active service with the army, navy, and marine corps. . . .

"California will be ready to meet whatever call for physicians the Government may make."—San Francisco *Call-Bulletin*, Monday, May 5.

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Medical Meet: 1,200 Open Convention Tomorrow

Del Monte, May 4.—The progress and discoveries of medical science during the past year will be brought into sharp relief before 1,200 physicians here tomorrow in opening meetings of the seventieth annual session of the California State Medical Association, May 5 to 8.

For four days the medical brains of the state will pool the results of experience and research in order to maintain the science of medicine on its march for humanity.

Pathologists, radiologists, general physicians and surgeons, obstetricians, gynecologists, dermatologists, neuropsychiatrists, bacteriologists, pediatricians, urologists, and multitudinous other specialists will meet in general session in the mornings and hold sectional meetings during the afternoons.

When the convention is over, the material will be compiled in classified form and circulated throughout the profession, bringing new light to thousands of doctors all over the nation.

In addition, thirty scientific displays have been set up about the Del Monte Hotel, each one tended by an expert, who will explain the exhibit to delegates and guests.

First general session will be held tomorrow morning at nine o'clock, with Charles A. Duke, past president of the Association, and President Harry H. Wilson presiding.

Opening Address

President James McPharlin of the Monterey County Medical Society will deliver the welcoming address.

Highlight of the session will be President Wilson's address. Dr. Ray Lyman Wilbur, president of Stanford University, also will speak.

Section meetings will be held in the afternoon, and the House of Delegates will hold their first meeting in the evening. . . .—San Francisco *Chronicle*, Monday, May 5.

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Doctors Meet at Del Monte

Start Work Before Convention Opens

Del Monte, May 5.—In their own very special way, the doctors have one whale of a time at a convention.

Today was supposed to be the first day of the California Medical Association's seventieth annual convention, but the doctors couldn't wait. So yesterday, they whipped out their microscopes and shadow boxes and began squinting at sections of tumors, and microphotograps of cancer cells.

Today the regular opening session convened under the chairmanship of Dr. Harry H. Wilson of Los Angeles, Association president. Approximately 1,200 doctors were in attendance. . . .—San Francisco *News*, Monday, May 5.

TUESDAY, MAY 6, REPORTS

Medical Association

"Doctors Responsible for Survival of Civilization"

Del Monte, May 5.—"Can we take it?"

That was the question put to 1,200 members of the California Medical Association today by their president, Dr. Harry H. Wilson of Los Angeles, during the first general meeting of the Association's seventieth annual session here.

"The medical profession is charged with the task of proving civilization is not failing," Doctor Wilson declared. "We must remain civilized even if our worst fears are realized." . . .

Doctor's Responsibility

The responsibility of the doctor of medicine, Doctor Wilson said, "is to be educated, adult-minded, stabilized, and public-minded."

Dr. Ray Lyman Wilbur, president of Stanford University, addressed the assembly on the California Physicians' Service and turned over a $2,000 check to President Wilson as a token payment on the original funds advanced for the Service in 1939 by the Association. . . .—San Francisco *Chronicle*, May 6.

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Draft of Medical Students Scored

Del Monte, May 6.—The real front line trenches of modern warfare, where medicine may be called upon for its greatest service, are not on the battlefields where great armies clash, but in the congested cities behind the lines Dr. Philip K. Gilman of San Francisco, an outstanding figure at the California Medical Association convention here, said today.

"London is the real front line in Europe today," Doctor Gilman said.

"It is an outstanding example of the need for having a large force of doctors far behind the battlefields."

Doctor Gilman declared that any policy of national defense that would tend to cut down the number of physicians available, such as drafting of medical students, would dangerously imperil the safety of civilians in time of war.

More Needed

"It is a fact that the army must have more and more doctors," he said.

"They require 8,000 a year right now, just for preparedness. If we actually get into war, the army's needs will be vastly greater.

"This adds up to one conclusion. Every effort must be made to keep medical students in school to fill the gaps left by physicians entering military service."

Dr. Harry H. Wilson of Los Angeles, retiring president of the Medical Association, declared in favor of draft exemption for all premedical students, but said the Administration in Washington apparently was fearful of making such a ruling for fear of pressure from other groups, which might also seek exemptions.

Only Best Picked

Dr. John H. Musser of Tulane University, who came by plane from New Orleans to conduct a clinical session today, criticized last week's War Department ruling that premedical students could be draft exempted when, in the opinion of their draft boards, they gave indications of developing into good doctors.

"Any student accepted in a medical course should be considered a good prospect for the medical profession, and automatically exempted," Doctor Musser declared, "for the simple reason that only the cream of all the applicants for medical studies are accepted by the schools themselves.

"At Tulane University last year, we had 930 applicants for the study of medicine, yet selected only the 130 who seemed most promising."

Doctor Musser felt, however, that medical students exempted from draft duty should pledge to take their one year's military training after graduation.

Doctor Musser also declared that some of the reasons for draft rejection "seem rather silly."

"I'd rather have a flat-footed soldier who could think than one who was a perfect physical specimen, but who might be emotionally flighty, unstable under difficulties, or bordering on being a psychopathic case, he said.

War Wounds Different

Doctor Gilman, who said that medicine's greatest advance in recent years has been in the fields of chemistry and preventive medicine, rather than the mechanics of the profession, pointed out the differences between war wounds of the present day and those of the last World War.

"In those days of trench warfare, the majority of injuries were in the front of the body, from the waist up.

"In this war, with its terrible bombings, most of the wounds are in the back and buttocks, due to soldiers and

civilians throwing themselves prone to avoid being struck by scattering bomb fragments," he said.—San Francisco *Call-Bulletin,* May 6.

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State Heart Group Names San Francisco Man Vice-President

Del Monte, May 6.—Dr. Howard F. West of Los Angeles and Dr. Harold Rosenbloom of San Francisco were elected president and vice-president, respectively, of the California Heart Association for the coming year at the group's annual convention here.

New executive board members include Dr. Eugene Kilgore, San Francisco, and Dr. William Leake, Los Angeles.—San Francisco *Call-Bulletin,* May 6.

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Attack Army Camp Diseases

Del Monte, May 6.—Activities of the State Department of Public Health in repressing prostitution near army camps, and in preventing spread of disease in rapidly congesting industrial areas, have more than doubled in the past six months under the national defense program, it was revealed here today by Dr. A. Elmer Belt, president of the department.

Here to attend general sessions of the convention of the California Medical Association, Doctor Belt appealed to physicians in private practice, as a "matter of patriotism," to coöperate more closely with the health department, in view of "increasing dangers."

Prostitution near army camps now is under orders of the Secretary of War and Surgeon-General of the Army to be "repressed," Doctor Belt pointed out.

Attack Prostitution

"Health of the army is getting more attention than ever before," Doctor Belt declared.

"We are putting down prostitution in areas near army camps wherever the local authorities will coöperate with us.

"While some of them, for political and greedy reasons, have not coöperated, in other areas we have had great success."

Doctor Belt praised a bill pending in Congress which would give army authorities the right to declare "out of bounds" any community whose officials refuse to coöperate in controlling the vice traffic. . . .—San Francisco *Call. Bulletin,* May 6.

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New Uses of Sulfa Revealed at State Medical Meeting

Interest Centers on "Miracle Drug"

Doctors in Half-Dozen Fields Hail Promise of Further Benefits

Del Monte, May 5.—Those amazing sulfonamides, the new drug family that has captured the center of American medical gatherings for two years, stole this one today, too.

Doctors in a half-dozen fields of medical practice told their associates, gathered here in the California Medical Association convention, that there is great promise in sulfa compounds so new they are not on the market.

And they related that the known sulfonamides, which earned the name of "miracle drug" after their successes against pneumonia, childbed fever, meningitis and a whole series of man-killing germs, now are proving of great worth in specific afflictions of the eye, ear, nose, and throat.

Health Guard

The doctors turned to new conquests of the sulfonamides after hearing at their opening session that the California Physicians' Service--the system of prepaid medical care which they set up as their answer to the challenge of socialized medicine—has grown rapidly in its first year of operation.

Sulfanilamide, the granddaddy of the sulfa family, first established the place in medicine of the new drugs by its dramatic effectiveness against childbed fever.

American Product

Now sulfathiazole, an American product, has proved in most cases to be more potent and less toxic than either of its relatives.—San Francisco *Examiner,* May 6.

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California Physicians' Service

First Year Shows Big Growth in Medical Service

Doctors' Answer to Socialized Systems Reports 27,000 Beneficiary Members in State

Del Monte, May 5.—A frank air of elation characterized reports to the California Medical Association today on the first year's operation of the California Physicians' Service—organized medicine's answer to the threat of socialized medicine.

Set up by the Association only a year ago, California Physicians' Service has 27,000 beneficiary members or clients and 5,300 participating doctors, reported Dr. Albert E. Larsen of San Francisco, secretary of the service.

Fifty Thousand Prediction

He confidently predicted that the present rate of growth will continue and the service will be reaching 50,000 Californians this time next year.

"This was a very daring thing for the medical profession even to attempt—and the record for the year speaks for itself," Doctor Larsen said.

A prepaid medical service plan, the Physicians' Service differs from various socialized medical systems, says the Association, in that it preserves the patient's choice of doctor, treats all instead of limited types of illness and maintains the essential principles of private medical practice.

Warned Against Speed

So rapid was the growth of the Service that Dr. Ray Lyman Wilbur, president of Stanford University and head of the Service's board of trustees, warned against growing "too fast."

"We want the doctors and not the legislators to settle the problems of medical care," he said, as he returned to the Association $2,000 of the sum it had advanced to start the Service.

Dr. Dwight H. Murray, Napa, declared the progress of California Physicians' Service was responsible for the tabling of the State Health Insurance Bill in the Legislature. John M. Pratt, Chicago, former publisher, who is handling the national fight for the "National Physicians' Committee for Extension of Medical Service," described the California Physicians' Service as "the most encouraging thing I've seen anywhere in the country."—San Francisco *Examiner,* May 6.

WEDNESDAY, MAY 7, REPORTS

Drop in Disease Rate Traced to State Control

Del Monte, May 6.—A "striking" decrease of 42.7 per cent in the number of early syphilis cases in California was reported to the California Medical Association here today.

Attributing the decrease to the state's syphilis control program, now in its fifth year, Doctor Malcolm H. Merrill of the State Department of Public Health said that, of 98,789 men examined by doctors of California draft boards, 2,907, or 2.95 per cent showed positive tests.

He reported that premarital and selective service regulations have increased to 300,000 yearly the number of tests made, with an annual discovery of 6,000 cases. . . .—San Francisco *Examiner,* May 7.

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Visiting Doctors Give Diagnoses at Del Monte

Del Monte, May 6.—Two distinguished doctors showed the talent that made them distinguished at a serious "game" played by the California Medical Association today.

It was what the doctors call a "clinical-pathological conference." The visiting doctors—John H. Musser of Tulane Medical School, New Orleans, and Robert F. Loeb, Columbia Medical School, New York—were presented case histories on two rare maladies and asked to diagnose.

Doctor Musser diagnosed his case as "dissecting aneurism," an affliction in which a pocket forms in the blood stream. Doctor Loeb diagnosed the second case as "Cushing's syndrome associated with basopholic adenoma," a rare type of tumor.

Dr. Alvin J. Cox of Stanford Medical School confirmed both diagnoses.—San Francisco *Examiner,* May 7.

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Medical Progress Convention Topic

Plaster of Paris for War Wounds; Steel and Electricity Used

Del Monte, May 6.—California's men of medicine heard today how three common articles of human use—plaster of Paris, stainless steel, and an electric current—have been put to work in new ways by medical science.

It was a day set aside by the California Medical Association convention for every doctor to follow his own specialty, and the 1,500 delegates talked about everything from the latest trick of allergy's antigens to the peculiar problems in keeping an athlete at top form.

But the three familiar articles, which have a thousand uses unconnected with medicine, held the center of attention. . . .

Tomorrow the doctors again will break up into a dozen sections to talk about new things in many fields of medicine.

Business Session

Tomorrow night they will hold their principal business meeting, when Dr. Henry S. Rogers of Petaluma will be seated as new president, replacing Dr. H. H. Wilson of Los Angeles. Doctors also will vote on a series of constitutional amendments. . . .

Thursday has been set aside almost entirely for military medicine. But the subject continued to force its way into almost every program.—San Francisco *Examiner*, May 6.

THURSDAY, MAY 8, REPORTS

State Medical Society

New Chief Takes Office

Del Monte, May 7.—Dr. Henry S. Rogers of Petaluma assumed the presidency of the California Medical Association here today, succeeding Dr. Harry H. Wilson of Los Angeles.

The change of office marked the third day of the Association's four-day seventieth annual session at the Hotel Del Monte. Doctor Rogers left his dual position of president-elect and vice-president to head the Association, an automatic procedure.

Elected to fill his previous post was Dr. William R. Molony of Los Angeles, former president of both the State Board of Medical Examiners and the Los Angeles County Medical Association.

Doctor Rogers is a well-known eye, ear, nose, and throat specialist of northern California and has been active in the Association as a councilman for the past nineteen years. He served two years with the United States Army Medical Corps during the first World War.

Doctor Wilson was tendered a president's dinner last night, and today was presented with a past president's certificate before turning his office over to Doctor Rogers.

Later the House of Delegates met to consider eight proposed amendments to the Association and thirteen resolutions.

Dr. Philip K. Gilman of San Francisco, member of the American Medical Association's Committee on Medical Preparedness and councilor-at-large for the California Medical Association, was returned to office.

It was anticipated that Dr. George H. Kress would be returned to his present office of secretary-treasurer and editor of the State Association's Journal.—San Francisco *Chronicle*, May 8.

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Medics Told United States Is Facing Emergency

Del Monte, May 8.—The great dual task facing American medicine today, far beyond the needs of the World War, is to prepare, without delay, for possible wartime emergency in the field without neglecting the "home front," Dr. Philip K. Gilman of San Francisco told more than 1,500 doctors today at the final general session of the California Medical Association convention.

The "home front," he said, may be just as real as any far-flung battle line if the United States happens to enter the present conflict. In this connection he cited the growing lists of civilian casualties caused by bombings in Europe.

Training for 75,000

"Long-range bombers have widened the field that must be protected by medical care in modern warfare," Doctor Gilman said.

This has made necessary the immediate training of 75,000 additional public health nurses, three times as many as are now available.

The preparedness program already has shown the glaring need for more and more doctors, Doctor Gilman declared.

"If we get into war the requirements will be even greater, immediately," he added.

He said the future may find a shortage of medical men unless medical students are exempted from the draft. In this, he joined the appeal made two days ago by Dr. John Musser of Tulane University, who argued that all premedical students should be exempted long enough to finish their studies.

Shortage Threat

The acuteness of the threatened shortage already has been recognized by the army, the speaker said, pointing out that the age limits for military physicians, in certain classifications, recently were raised above the 35-year mark.

As state chairman of medical preparedness, one of Doctor Gilman's tasks is to staff the six huge hospitals still under construction at military training bases in California—at Fort Ord, Nacimiento, San Luis Obispo, March Field, Torrey Pines, and Santa Barbara.

Of the 288 medicos required, many are being drawn from reserve ranks, with others being induced to join the reserves for this year's military service.

He praised a questionnaire circulated by the American Medical Association, cataloguing all doctors in the nation for the convenience of the army, navy, and public health service.

Facilitation Seen

"Placements in time of emergency will thus be facilitated, and we won't be so apt to have madhouse, haphazard selection as we did in the last war, when entire counties were left without medical care," Doctor Gilman said.

Special problems of military medicine are being studied by western doctors, it was disclosed. These deal with better methods of treating war wounds, problems of aviation medicine, and the most modern usages of recently discovered chemicals in the treatment and prevention of disease.—San Francisco *Call-Bulletin*, May 8.

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"Blackouts" in Pilots' Dives Curbed

Del Monte, May 8.—Perfection of a revolutionary device to eliminate "blackouts" of consciousness often suffered by army and navy pilots, especially in dive bombing, was disclosed to physicians attending the California Medical Association conclave here today by Captain Robert G. Davis, Navy Medical Corps, at a session devoted to military medicine.

The gadget, consisting of an inflation belt covering the entire front of the body, from the pelvis to above the diaphragm, is expected greatly to increase safety in this difficult war maneuver, as well as make it more effective.

The "blackouts," or faints, Captain Davis explained, are caused by sudden turns in maneuvers, or by the physiological changes caused by a sudden increase in flying speed, from 200 to approximately 600 miles per hour, during a dive.

Blood Quits Head

When the speed is so rapidly accelerated there is a tendency for the blood to leave the head and "pool" in the abdomen.

The new safety device, invented by Commander John Poppen of the navy, can be inflated before diving, the air pressure in the belt being so great it presses tightly against the forepart of the body, preventing the customary sudden inflow of blood.

Large scale manufacture of the belts for the navy and army was forecast by Captain Davis.

Stresses Opportunity

Another speaker at the military symposium was Captain E. U. Reed, Twelfth Naval District chief medical officer. He stressed the opportunities for men of medicine in military service, pointing out that 720 medical officers can be immediately placed in commissions in the navy.

He made a special appeal for specialists in pathology, surgery, roentgenology, urology, orthopedics, psychiatry, ophthalmology, and otolaryngology.

Other speakers included Dr. Charles A. Dukes of Oakland, member of the National Committee on Medical Preparedness; Lieutenant-Colonel John Schaefer, Army Medical Corps; and Lieutenant-Colonel Bert Thomas, chief of the medical division of the California Selective Service.—San Francisco *Call-Bulletin*, May 8.

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Board Service Wage Tabled

Critics of Resolution Foresee Public Reaction

Del Monte, May 8 (UP).—The California Medical Association today refused to initiate the controversial subject of payment to physicians serving voluntarily on local draft boards.

The House of Delegates rejected a resolution which recommended that the Governor and Selective Service officials be petitioned to compensate physicians for their draft board services without specifying a specific amount. The resolution thus went back to the Executive Council which in effect tabled it until a future date.

Speakers brought to the attention of the 1,500 members that other local board members are serving without pay, and a move by physicians to win compensation undoubtedly would result in unfavorable publicity.

Doctor Rogers Installed

Dr. Henry S. Rogers of Petaluma was installed as president of the California Medical Association, succeeding Dr.

Harry H. Wilson of Los Angeles, and Dr. William R. Molony, Los Angeles, was elected president-elect. He will succeed Doctor Rogers automatically in the presidency in 1942.

Doctor Molony is former president of the State Board of Medical Examiners and of the Los Angeles County Medical Association.

The Association agreed to meet again in Del Monte in 1942. . . .—San Francisco *News*, May 8.

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War News Affects Glands, Medical Convention Told

Study of Thyroids, Adrenals, Topic at Del Monte; New Progress in Remedy Reported

Del Monte, May 7.—California doctors today turned their attention to those glands that act as the mysterious sparkplugs of the human body, reporting new advances both in understanding and treatment.

They devoted most of the California Medical Association's third day to the adrenals and the thyroid—subjects particularly apt, program chairmen pointed out, because war news is causing upsets of these tiny organs in much of the population.

Officers Elected

Their day of medical meetings ended, the doctors turned to business affairs and last night elected as 1942-1943 president Dr. William R. Molony, Sr., of Los Angeles, former president of the State Board of Medical Examiners.

Dr. Philip K. Gilman of San Francisco was reëlected councilor at large; Dr. L. R. Chandler, dean of Stanford Medical School, was chosen alternate to the national convention, replacing Dr. Robert S. Stone, retiring, and Dr. Frank R. Makinson of Oakland was elected Seventh District councilor.

Tomorrow the Association's Council, the governing body, is expected to reëlect Dr. George H. Kress of San Francisco as secretary-treasurer and editor of CALIFORNIA AND WESTERN MEDICINE. Doctor Gilman will be urged to accept chairmanship of the Council for another year, even though there is a possibility that the naval medical unit which he heads will be called to service within the year.

Tomorrow's general sessions will be concerned entirely with military medicine. Speakers are on hand from the army, navy, and state draft headquarters.

Session Harmony

As the convention neared its close, doctors commented on the usual harmony that has prevailed.

"I don't think the doctors have ever been so close together as now," said Doctor Gilman. "I guess we realize that if we don't hang together, state-controlled medicine will hang us separately."

With minor revisions in fee schedules by the trustees of California Physicians' Service—the Association's prepaid medical plan answering the threat of socialized medicine—the last bone of contention in the convention was removed. A vote of confidence in California Physicians' Service was expected.—San Francisco *Examiner*, May 8.

FRIDAY, MAY 9, REPORTS

Doctors Study Plan to Help Draftees

Del Monte, May 9.—A revolutionary new plan for selection of draftees, permitting their final acceptance or rejection a month before actual induction dates, was being discussed here today as members of the California Medical Association prepared to return home after one of the most successful conventions in the group's history.

Safeguard Jobs

Revealed by Lieutenant-Colonel Bert S. Thomas, chief of the medical division of the State Selective Service System, the plan would safeguard against needless sacrifice of jobs or professions by draftees who, under the present setup, must give up their connections before reporting to the army for induction.

Many Lose Posts

In many cases—about 2,000 in California, so far—men called for military service have been rejected later by army examiners as unfit. With their jobs and holdings relinquished, they have had to start all over again.

Colonel Thomas said the new plan is being tried during May in Pennsylvania.

If it proves beneficial, presumably it will be extended to all other states at once.

Colonel Thomas explained the plan as follows:

A draftee undergoes the customary physical checkup.

Then, instead of being told to report for induction into the army on a certain date, prior to which he severs his civilian connections, he is sent before the induction board medical examiners a full month early.

Californians Healthy

After that examination he knows positively whether he is to be accepted. If rejected, his job has not been sacrificed.

Colonel Thomas disclosed that draftees in California are showing a far higher degree of health than in eastern states, where rejections average 10 per cent. In California the rate is about 6 per cent.

All of the state's prospective draftees will be tentatively classified within sixty days, he said, under the recent War Department order to immediately send questionnaires to all men registered.

By the end of an additional thirty days, he expects, all will have been physically examined and classified.

Great Opportunity

He pointed out that the selective service system gives American doctors the "greatest opportunity in history to improve the health of a great nation."

"Just think what it will mean to the nation's future health if the doctors, who now have the opportunity to examine every man between twenty-one and thirty-five, will sincerely report their findings of communicable diseases," he said.

Draft board doctors came in for further attention, under two proposals. One, made by the California Medical Association Council, was that the American Medical Association convention at Cleveland in June study the possibility of paying the physicians. The second, urging draft board medicos to "bend a little" to coöperate with induction center physicians, was voiced by Lieutenant-Colonel Bert S. Thomas of state draft headquarters.

The action on the pay problem followed refusal of the Association's House of Delegates to pass resolutions favoring compensation for draft board doctors. . . .—San Francisco *Call-Bulletin*, May 9.

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Medical Defense Problems Studied at Del Monte Meet

Army Officer Charges Selfish Malingering by Young Doctors to Escape Military Service; Session Ends

Del Monte, May 8—California doctors ended their annual convention in a sharply critical mood today, with both civilian and military physicians charging that military medicine is a dangerously weak spot in the national defense picture.

The attacks came at a final session of the California Medical Association that was devoted exclusively to military medicine, with doctors speaking from the Army, Navy, and Naval Aviation National Committee on Medical Preparedness and Draft Administration.

High spots were:

1. Lieutenant-Colonel John H. Schaefer, Medical Corps officer attached to the Ninth Corps Area at San Francisco, struck out at young doctors, whom he accused of selfish malingering to escape military service.

2. Dr. Charles A. Dukes of Oakland, member of the National Committee on Military Preparedness, asserted the nation's armed forces face a shortage of doctors despite recent changes in draft regulations.

3. On the heels of the refusal of the Association's House of Delegates last night to pass resolutions favoring compensation for draft board doctors, the Council of the Association voted this morning to ask study of the pay problem at the American Medical Association convention at Cleveland in June.

4. In an apparent effort to quiet discontent among draft board doctors who pass draftees only to have them rejected at induction centers, Lieutenant-Colonel Bert S. Thomas of state draft headquarters urged the doctors to "bend a bit" for the general good.

5. Relieving the general gloom somewhat was a disclosure by Dr. Robert G. Davis, Captain of the Navy Medical Corps, that the navy is in quantity production on a device that successfully combats the dangerous "blackout" of combat flying.

Sixteen Thousand Doctors a Year

Before leaving for home, members of the Association's Council reëlected Dr. Philip K. Gilman of San Francisco as chairman of the Council; Dr. George H. Kress of San Francisco as secretary-treasurer of the Association; John Hunter of San Francisco as executive secretary; and Hartley Peart as general counsel. Del Monte was given next year's convention again.

Colonel Schaefer opened his unexpectedly frank talk by declaring an army of 2,500,000 men is in prospect, that such an army would mean 16,000 new doctors a year, and that no such number of doctors is in prospect now.

Emphasizing the feared shortage of military physicians, Doctor Dukes said that schools graduate only 5,200 yearly, and that not more than 3,500 of them are eligible for service. Even if there is not the expanded army predicted by Colonel Schaefer, the army will need 9,000 new doctors a year, he said.

"Honest Differences"

During debate at last night's session on proposals to seek payment for draft board doctors now working on a voluntary basis, Dr. H. R. Madeley of Vallejo had charged that some induction station doctors are trying to make draft board doctors look inadequate "for reasons I don't know."

Colonel Thomas, chief of the medical division of State Draft Headquarters, said many of these difficulties grew out of honest differences of opinion among doctors, and said the situation is being remedied rapidly.

"Bend a bit to acceptable policies that benefits all," he urged.

Captain Davis, executive officer at the Mare Island Hospital, former chief of staff aboard the airplane carrier Saratoga and former chief of staff at Pensacola, said the navy's antiblackout device has proved itself in two years of tests.

The blackout causes momentary unconsciousness in combat flyers during steep dives and turns. It occurs because blood is pulled from the brain to the abdominal region by gravity.

The seriousness of the problem grows out of the fact that blackouts usually begin at 200 miles an hour in a steep turn, while modern combat planes must fly at 400 or more miles an hour.

Rubber Jacket

The navy's device, developed by Commander J. R. Poppen of the Navy Medical Corps, is a hollow rubber jacket that fits snugly about the abdominal region from hips to shoulders. A tube leads from it to a tank of compressed oxygen.

When the flyer enters combat he opens the tube manually and the belt fills instantly, becoming the equivalent of a tightly laced corset that prevents the flow of blood to the middle regions, the belt can be emptied rapidly.

Captain E. U. Reed, medical officer attached to the Twelfth Naval District of San Francisco, told the convention the navy needs a small number of additional specialists in virtually all fields of medicine and surgery, together with technicians in enlisted ratings.—San Francisco *Examiner*, May 9.

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Draft Menaces United States Supply of Doctors

Del Monte, May 8.—The seventieth annual session of the California Medical Association closed here today on a somber note—a note with overtones of an impending crisis within the profession and of sharp criticism directed at a "small but far too numerous" group of draft-age doctors.

Speaking at a general session on military medicine, members of the Association and military medicos drew attention to an impending shortage of doctors throughout the country under present terms of the Selective Service Act, and to attempts by some young doctors to evade the call to service.

Dr. Charles A. Dukes of San Francisco and Dr. Lieutenant-Colonel John H. Schaefer, Ninth Corps Area surgeon, outlined the "dearth of doctors" faced by the armed forces and civilian population of the country unless medical students are deferred to allow them to finish their studies.

"The necessity of deferment is apparent when you realize under present plans the armed forces will need 900 new doctors a year as against the country's annual crop of only 5,200 doctors," Doctor Dukes said.

3,500 Doctors Eligible a Year

Of the 5,200 new doctors, it is quite likely only about 3,500 will be eligible for draft service, the doctor declared. Marriage, physical defects and dependencies would remove a great many from the eligible list.

Colonel Schaefer said the army at present has only 1,200 "regular" doctors in the Medical Corps.

"We need 7,900 Medical Reserve officers," he declared. "And if we are to meet the requirements of the act as it now reads, we will need not less than 7,900 new doctors every year for the next four years.

"If the medical profession is capable of increasing its output of new doctors to 7,900 a year, I'd like to know how," he added.

Colonel Schaefer said there were "reports" from Washington legislation to raise the army to a strength of 2,500,000 men is pending.

"This is my personal and absolutely unofficial opinion," he said, "but if this is done we need 16,000 new doctors at once, and 15,000 new doctors every year for the army alone."

"U. S. Doesn't Have Reserve of Ten Thousand"

The report America still has a reserve of ten thousand medicos is fallacious, Colonel Schaefer said. "A great many of these doctors are overage, have lost contact with their military medicine, have major dependencies or have been too long in restricted and specialized fields which would not be adaptable to general military medicine," he said.

Lashing out vigorously, Colonel Schaefer then charged a "small but far too numerous group of young doctors under the age of 35 are seeking to evade the call to service through evasion, falsehood, and actual malingering."

"This is time for plain talk," he said. "I have no quarrel with organized medicine, as such. My quarrel is with the younger members who are showing a complete lack of responsibility and are apparently motivated by greed, selfishness and moral cowardice.

"Moral cowardice has become increasingly evident in cases of young members of the profession whose excuses, in some cases, have been ridiculous."

Colonel Schaefer quoted five specific cases of attempted evasion.

"One man claimed he owed $15,000 to a bank," he said. "Investigation showed he had nothing to post as collateral for such a loan, and, in fact, the loan did not exist."

Another young doctor called to serve protested an injured back, but has been unable to produce any symptoms since warned a thorough checkup would be made by army medicos.

"Putting It Over on the Army"

One candidate for service went so far as to take a quantity of thyroid stimulant in order to produce symptoms of chronic ill health. "We followed up a report he had bragged about 'putting it over on the army,' and he's serving today," Colonel Schaefer said.

"Several candidates attempted to simulate poor eyesight," he added. "I call these men slackers."

The Colonel detoured to commend particularly the attitude of the "older members of your profession who have shown a patriotic zeal second to none.

"Many, and I mean a great many, of your older members have come to me begging for a post. They have been willing to give up long-established practices to take active duty at actual financial loss," he said.

Despite the critical tone of Colonel Schaefer's address, he was applauded loudly while descending from the platform. Dr. Henry S. Rogers, new president of the Association, thanked Colonel Schaefer for his "frank discussion."

Navy Needs Technicians and Doctors of Psychology

Chief needs of the navy medical department, as told the convention by Captain E. U. Reed, Medical Corps, United States Navy, dispatched to Del Monte by Secretary of the Navy Frank Knox, is for qualified medical and dental technicians in the enlisted ratings and for doctors of psychology.

Doctors of psychology, Captain Reed said, would be eligible for the ranks of ensign, lieutenant junior grade, and lieutenant, depending upon age and experience.

"Last month there were on active duty 911 medical officers of the regular navy," he said. "Of these, 75 were former retired medical officers and 514 were reserve medical officers. An additional 200 reserve medical officers were under orders to report for active duty.

"We need 420 more medical officers of the regular navy and 300 acting assistant surgeons to take internships in our naval hospitals and later accept commissions as regular or reserve medical officers.

"We also need more reserve medical officers for general service and a number of experienced specialists in pathology, roentgenology, surgery, urology, orthopedics, psychiatry, ophthalmology, and otolaryngology to complete our naval medical specialist units," he said.

Dive Bomber's "Blackout" Cured

The problem of "blackout," that split-second lapse of consciousness experienced by the War Eagle as he pulls his diving plane up into a steep climb, has been virtually solved, Dr. Captain Robert G. Davis, executive officer of the Mare Island Navy Hospital, told the convention.

"We've solved this problem from a hydrostatic point of view by the use of a tight-fitting belt which fits over the pelvis and abdomen and can automatically be inflated from compressed oxygen containers.

"The belt fills with the oxygen exerting strong pressure against the organs and preventing the body fluids from draining from the upper regions of the body," Doctor Davis said. "This prevents blackout."

The belt is termed the "Poppen belt" and was invented by Dr. Commander J. R. Poppen. Doctor Davis came to Mare

Island from Pensacola training station two years ago, and prior to that was chief of staff aboard the U. S. Saratoga.

Dr. Phil K. Gilman, chairman of the Association's Council, addressed the assembly on the place of the medical profession in the national defense picture.

"Our country is taking steps far beyond preparedness," he said. "It is taking steps that never can be retraced."

Industrial Medicine Doctors Advocated

Doctor Gilman outlined the task of medicine to provide for the shifting population, local expansions of industry, enlargement of the armed forces.

He advocated the approach to medicine's defense problems through the industrial medicine doctors.

"They have an insight into the type of problem we are going to face that is not enjoyed by the general practitioner," he said.

Dr. Lieutenant-Colonel Bert S. Thomas asked doctors serving on draft boards to "bend a little" with induction center doctors who, the board doctors complain, have been rejecting a great many draftees previously approved by board physicians.

Colonel Thomas' talk was in reply to comment made by Dr. G. Randall Madeley of Vallejo last night during the house delegates' discussion of a resolution asking that draft board doctors, now serving on a voluntary basis, be compensated for their services. The resolution was turned over to the Council of the Association, who this morning voted to present it to the national convention of the American Medical Association at Cleveland, June 2 to 8.

Gilman Is Reëlected

Other matters transacted at this morning's Council meeting, included the reëlection of Dr. Philip K. Gilman, chairman of the Committee for Medical Preparedness in California, as chairman of the Council, and the reappointment of Dr. George H. Kress as secretary-treasurer and editor of the Association.

John Hunton, executive secretary of the Association, and Hartley Peart, San Francisco attorney representing the Association, both were reappointed to office.

The Council seated its new member, Frank Makinson of Oakland, who replaced Dr. O. D. Hamlin of Oakland, retiring after more than twenty years as a councilman.

The Association voted to make Del Monte the scene of next year's seventy-first session.—San Francisco *Chronicle*, May 9.

CALIFORNIA COMMITTEE ON MEDICAL PREPAREDNESS‡

News items related to Medical Preparedness follow:

British Seek United States Doctors*

President Urges Young Physicians to Enter English Hospital Work

Hyde Park, N. Y., April 20 (AP).—President Roosevelt urged young American doctors tonight to volunteer for service in military and civilian hospitals of "our British friends."

He said in a statement, released at the temporary White House, that the British Red Cross had appealed through the American Red Cross for as many as 1,000 young American doctors to help it meet "an acute shortage" of physicians in British hospitals.

"As president of the American Red Cross," Mr. Roosevelt said, "I heartily approve this request."

Can Do Much

He said his views were shared by the surgeons-general of the Army, Navy and Public Health Service and that the doctors whom Britain "so desperately needs can do much to heal the wounds inflicted alike upon civilians and military in this cruel war."

The physicians who volunteer, the President explained, will be enrolled by the British Red Cross and be protected by the Red Cross Treaty of Geneva, which he said had been respected by belligerents since 1864.

The text of the Presidential statement:

"The British Red Cross has appealed through the American Red Cross for up to 1,000 young American doctors to help it meet an acute shortage of doctors in British military and civilian hospitals. As president of the American Red Cross I heartily approve this request.

Aid Volunteered

"When the British appeal came to my attention, I asked the opinions of the surgeons-general of the Army, Navy and Public Health Service. They joined me in believing we should encourage eligible American doctors to volunteer for this humanitarian service with our British friends.

"I am also informed that the Division of Medical Sciences of the National Research Council, the American College of Surgeons and the American College of Physicians have offered their assistance to the American Red Cross in meeting this emergency.

"The young doctors whom Great Britain so desperately needs can do much to heal the wounds inflicted alike upon civilians and military in this cruel war. Those who volunteer will be enrolled by the British Red Cross and will work under the protection of the Red Cross Treaty of Geneva, a covenant which has been respected by belligerents since 1864.

"To any American doctor who is eligible and able to go, service in this cause presents a splendid opportunity."

Details Announced

Details of the plan, which is ready for immediate operation, were announced in an editorial for a forthcoming issue of the *Journal of the American Medical Association.*

Successful applicants would serve for at least a year with the emergency medical service, treating principally civilian air raid and service casualties in Great Britain or at Royal Army Medical Corps stations in Egypt, Palestine, India, Burma, Malaya, China and East and West Africa.

No Oath Necessary

The volunteers, the editorial said, would not be obligated to enter military or naval service or to take an oath of allegiance to Great Britain, forfeiting their American citizenship.

The American Medical Assocation has supplied the American Red Cross with lists of young physicians who may be qualified for overseas service and is aiding in the selection of local examiners and representatives to pass on applicants.

To qualify, volunteers must meet training requirements, be United States citizens, preferably without dependents, and under 41 for service with the Royal Army Medical Corps and under 46 for the emergency medical service.

Start as Lieutenants

Successful applicants in the Royal Army Medical Corps will be commissioned as lieutenants with promotion to the rank of captain upon renewal of contract after twelve months' service. Subsequent promotions would be based on merit.

Remuneration, substantially the same as paid to officers of the United States Army Medical Corps, would be subject to the United States income tax rates instead of the higher British assessment. Compensation would be provided for injuries and disabilities. Comparable pay and protection is provided by the emergency medical service.

The appeal for medical reinforcements followed twenty-four years to the month institution of a similar World War arrangement between the two nations.—Los Angeles *Times*, April 21.

* * *

Medical Group Army Bill Tabled

Committee Opposed to Deferred Service for Embryo Physicians

Washington, April 18 (AP).—An attache of the Senate Military Committee said today that the committee had unanimously tabled legislation which would defer compulsory military service for medical and dental students, hospital interns and residents, and teachers of medicine or dentistry.

The committee recently held hearings on the measure at which spokesmen for leading medical, dental and hospital organizations urged its speedy enactment. It was opposed by Army and Navy officials.

Army Faces Shortage of Doctors, Says Fishbein

Phoenix, April 18 (AP).—The United States Army faces a shortage of physicians, Dr. Morris Fishbein of Chicago warned here today, unless the Selective Service Act is amended to permit medical students and interns to complete their education and training.

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‡ Philip K. Gilman, M. D., 2000 Van Ness Avenue, San Francisco, is chairman of the California Committee on Medical Preparedness. Charles A. Dukes, M. D., 426 Seventeenth Street, Oakland, is a member of the American Medical Association Committee on Medical Preparedness. Roster of county chairmen on Medical Preparedness appeared in CALIFORNIA AND WESTERN MEDICINE, August, 1940, on page 86.

* For editorial comment, see page 254.

Doctor Fishbein, speaking before the woman's auxiliary of the Arizona State Medical Association, said an army of 1,400,000 will need 9,100 doctors. He said the Regular Army has only 1,250 and estimated that 7,800 physicians will be needed each year for five years, with medical schools graduating only 5,200 this year.

"Blitzkrieg war," Doctor Fishbein said, "requires more doctors to the same number of men than did the old trench warfare."

The editor of the *Journal of the American Medical Association* declared that selectees "are far more healthy" than men drafted in 1917-18.

"The number of rejections is proportionately less, despite examinations which are more rigid, scientific and detailed," he said.—Los Angeles *Times*, April 19.

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Senior Medical Students to Be Enrolled in Reserve Corps

All senior medical students graduating from fully accredited medical schools in the United States this spring will be afforded the opportunity of being appointed first lieutenants in the Medical Corps Reserve of the Army. The students who did not pursue formal instruction in the Reserve Officers' Training Corps will be eligible for appointment in the Medical Corps Reserve on a par with those students who did have the advantage of such instruction.

These appointments will be made by the War Department on the recommendation of the dean of each approved medical school and on his certification that the applicant will be granted the degree of doctor of medicine on a specified date. At those schools which require a hospital internship for such degree, appointment will be made on certified evidence of the prospective successful completion of the prescribed four-year course of medical instruction. Commissions and letters of appointment will be delivered on graduation. The newly commissioned Medical Reserve officer should then present his letter of appointment to his local Selective Service board for reclassification.

No Medical Reserve officer is considered eligible for extended active duty until he shall have completed at least one year of postgraduate hospital internship. Therefore, members of this year's graduating class who are appointed in the Medical Corps Reserve, either through medical units of the R. O. T. C. or under the aforementioned procedure, will not be available for active duty until July, 1942. Deferment of such duty beyond that time will depend on the current requirement for medical officers.

In view of the anticipated annual demand for approximately four thousand Reserve medical officers to replace those who have completed twelve months' training and service, it is doubtful that such deferments will be possible.

The War Department approved appointment of senior medical students on February 18, and appropriate instructions were directed to the commanding general of each corps area. The deans of the several approved medical schools will receive complete instructions, together with appropriate application blanks, in the near future from the commanding general of the corps area in which the institution is located.—*Journal American Medical Association.*

• • •

Surgeon General Urges Nurses to Join Reserve

From the offices of the surgeon general who is supervising the procurement of nurses for the United States Army and the National Organization for Public Health Nursing comes word that there is no lag in new enrollments in the Red Cross Nursing Service. . . .

The nurse who has eligibility in the American Red Cross Nursing First Reserve must be between the ages of 21 and 40, have single status (single, divorced or widowed), belong to the American Nurses' Association and pass the training and physical requirements of the Red Cross Nursing Service.—Redwood City *Tribune*, April 12.

• • •

United States Medical Chief Urges Hospital Mobilization

Increased Facilities in Vulnerable Areas Asked

Boston, April 24.—Surgeon General Parran of the United States Public Health Service recommended today defense organization of the nation's hospital facilities in areas "vulnerable to enemy action," based on the experience of Britain at war.

He also said the medical needs of the civilian population should be considered in "all recruitment plans" and suggested that doctors be recruited only on a "quota" basis in respect to need, and that medical and dental students be deferred from selective service until completion of their internship, as they are in England.

Needs Outlined

Recently returned from Britain, where he made a survey of medical defense in the war area, Parran told the American College of Physicians:

"If we are to learn anything from the British experience on the medical front, we must provide additional operating theaters and their protection against enemy action, the protection of existing hospitals, the consideration of safety from air attack in new hospital construction, and the number, location and equipment of first aid posts.

"They should include the provision of ambulances of a standard type with standard fitments, the earmarking of commercial vehicles for emergency ambulance service, and the planning of decontamination centers and training of key persons in each vulnerable area in antigas warfare."

Doubling of Force

He said the number of public health doctors and nurses should be doubled as well as the number of sanitary engineers, laboratory technicians and other technical public health personnel. He added:

"Medical personnel for military, industrial and civilian health and medical services should be recruited on a quota basis, having in mind the service which each individual can render best. Volunteers should not be accepted if they are doing a more essential civil job. The objective should be to see that each doctor is doing the task for which he is best fitted."—San Francisco *Examiner*, April 21.

• • •

"Prehabilitation"

Draftees Advised to Correct Ailments Before Tests

Chicago, April 19 (AP).—To cut down draft rejections, selective service headquarters proposed today that registrants with physical defects should "prehabilitate" themselves with the aid of their family doctors.

The plan for potential army trainees to recognize and remove remedial defects before they take induction examinations was presented in the current issue of the *Journal of the American Medical Association.*

Selective service headquarters in the article expressed "considerable concern" over the number of deferments and rejections.

The plan outlined provides that (1) registrants familiarize themselves with the physical standards required; (2) registrants apply to their local physicians and dentists if they fall short of the stipulated standards; (3) family physicians and dentists correct defects if they are remediable; and (4) registrants carry certificates of prehabilitation to local and induction boards at the time they present themselves for examination.

"So far as the registrant is concerned, he need only familiarize himself with the medical and dental requirements and present himself for advice and treatment to his local doctor or dentist, in the event that he feels that he falls short of the designated requirements," the article said.

"The family doctor, being familiar with the registrant's family background, his past illness and his personal attributes, is the man to determine the nature and significance of the defects and to advise best as to what, if anything, should be done.

"Selection should be regarded as a stamp of efficiency, a signal honor and a distinct privilege."—San Jose *Mercury Herald*, April 20.

COMMITTEE ON PUBLIC POLICY AND LEGISLATION†

CALIFORNIA CONGRESSMEN: ADDRESSES

For the information and convenience of members who may wish to write to Congressmen concerning amendments to the Selective Service Act that would exempt medical students, the names and home addresses are given.

The two Senators may be addressed as follows: Hon. Hiram W. Johnson, United States Senate Chamber, Washington, D. C. Congressmen may be addressed in similar

† Component County Societies and California Medical Association members should not give endorsements to proposed legislation unless the California Medical Association Committee on Public Policy and Legislation has so requested. On such matters, address: California Medical Association Committee on Legislation, Dwight Murray, M. D., Chairman, 450 Sutter, San Francisco. Telephone, DOuglas 0062.

fashion, in care of United States House of Representatives. Since Congress is in session, mail should be sent to the Washington addresses. For comment, see page 255.

United States Senators

Hiram W. Johnson (R)*.....1360 Montgomery Street, San Francisco
Sheridan Downey (D).....Atherton

Representatives in Congress

First District: Clarence F. Lea (D).....719 North Street, Santa Rosa
Second District: Harry L. Englebright (R).....Nevada City
Third District: Frank H. Buck (D).....Vacaville
Fourth District: Thomas Rolph (R).....152 Twenty-eighth Avenue, San Francisco
Fifth District: Richard J. Welch (R).....978 Guerrero Street, San Francisco
Sixth District: Albert E. Carter (R).....552 Montclair Avenue, Oakland
Seventh District: John H. Tolan (D).....1007 Harvard Road, Oakland
Eighth District: John Z. Anderson (R)....San Juan Bautista
Ninth District: Bertrand W. Gearhart (R).....857 M Street, Fresno
Tenth District: A. J. Elliott (D).....Tulare
Eleventh District: Carl Hinshaw (R).....3053 Lombardy Road, Pasadena
Twelfth District: H. Jerry Voorhis (D).....End of Valley Center, San Diego
Thirteenth District: Charles Kramer (D).....1947 North Serrano Avenue, Los Angeles
Fourteenth District: Thomas F. Ford (D).....940 North Benton Way, Los Angeles
Fifteenth District: John M. Costello (D).....5771 Valley Oak Drive, Los Angeles
Sixteenth District: Leland Merritt Ford (R).....1306 Georgina Avenue, Santa Monica
Seventeenth District: Lee E. Geyer (D).....1126 Gardena Boulevard, Gardena
Eighteenth District: Ward Johnson (R).....790 Santiago Avenue, Long Beach
Nineteenth District: Harry R. Sheppard (D).....Yucaipa Boulevard, Yucaipa
Twentieth District: Ed V. Izac (D).....5380 El Cajon Boulevard, San Diego

Comment on Proposed Laws Having Public Health Implications†

California Legislature: Fifty-Fourth Biennial Session (Now in session at Sacramento)

Senate Bill 977.—This bill has been sidetracked, for the present at least. The author of the bill, Senator Swan of Sacramento, has requested that it be placed on the "inactive file" in the Senate. This puts it to sleep temporarily, but if and when the proponents feel that they can muster twenty-one votes in the Senate, they will again bring it up. For editorial comment, see page 257.

* * *

Health Insurance Bill Tabled.—From present indications, there will be no Compulsory Health Insurance Bill enacted by the present session of the Legislature. Senator Robert Kenny of Los Angeles, sponsor of Senate Bill 645, has requested the Senate Committee on Welfare and Institutions to table his bill. The committee gladly acceded to his request. He gave as his reason for requesting the bill to be tabled the fact that it was dependent upon similar legislation being enacted by Congress and he sees no prospect of such legislation before the present State Legislature adjourns. Assembly Bill 1730, a companion measure, is still pending before an Assembly Committee.

* * *

Assembly Bill 562, sponsored by the California Medical Association, has passed both houses of the Legislature and is now before the Governor for signature. This bill authorizes California Physicians' Service to enter into and perform medical service contracts with federal agencies.

A companion measure (Assembly Bill 563), relating to nonprofit service corporations, has been given favorable recommendation by the Assembly Committee on Corporations and is now before the Assembly for vote.

* (R) Republican. (D) Democrat.

† Compiled by The Public Health League of California, and the California Medical Association Committee on Public Policy and Legislation.

County Hospital Bills Tabled.—Assembly Bills 1037 and 1694, relating to county hospitals, have been tabled in committee. These bills were vigorously opposed by the hospitals of the state.

* * *

Assembly Bill 357, authorizing counties to contract for continuance of treatment of indigents in private hospitals, after admittance in emergencies, has been approved by committee and is now before the Assembly for vote.

* * *

Assembly Bill 1683, the hospital lien bill, has also been given committee approval and is up for vote in the Assembly.

* * *

Senate Bill 428, amending the Pharmacy Act, was given a committee hearing on Thursday evening, but to date the committee has not taken action. It has been rumored that the bill in its present form will not be approved. The druggists are said to be considering plans for a new bill.

* * *

Assembly Bill 503, a measure of great importance to the medical profession, has passed the Assembly and now goes to Senate Committee.

* * *

Assembly Bill 1475, the reciprocity bill for graduates of foreign medical schools, passed the Assembly by a vote of 53 to 12, but Assemblyman Wollenberg of San Francisco asked for a reconsideration of the vote. The fate of the bill in the Assembly is still pending.

* * *

Assembly Bills 2144 and 2145, sponsored by the Chiropodists, have passed the Assembly and the Senate and now go to the Governor's office.

* * *

Assembly Bill 1507.—At a conference here on Tuesday, the sponsors of Assembly Bill 1507, relating to clinical laboratory technologists and technicians, announced that they would drop the bill for the present session of the Legislature.

COMMITTEE ON POSTGRADUATE ACTIVITIES†

University of California Session for Doctors of Medicine

The University of California Medical School, Medical Center, San Francisco, announces a postgraduate session for doctors of medicine in general practice, to be held June 16 to 27, 1941. Further information follows:

Stacy R. Mettier, M. D., Associate Professor of Medicine, Director of Refresher Courses, *in Charge*

Tuition fee: Medicine, $50; General Surgery, $25; Orthopedic Surgery, $25; Obstetrics and Gynecology, $25.

Registration: Physicians may register by mail. Please send checks (payable to the Regents of the University of California) to the Dean's Office, University of California Medical School, Medical Center, San Francisco. In order that arrangements may be made, it is desirable that all checks be received by the Dean's Office not later than June 1, 1941. Any physician who is unable to register by mail before that date is requested to register and pay his fees at the Dean's Office of the Medical School, Room 145, Clinics Building, The Medical Center, San Francisco, between 8:30 and 9 a. m. on the first day of his attendance.

These short comprehensive courses are designed to meet the needs of physicians engaged in private practice. Many of the discussions will be illustrated by patients, lantern slides or pathological material.

Miscellaneous information: The Students' Cafeteria at the Medical Center will be open for lunch, but not for dinner.

Physicians enrolled in the course will be welcome to use the facilities of the Medical School Library.

† Requests concerning clinical conferences, guest speakers, and other information, should be sent to the California Medical Association headquarters office, 450 Sutter, San Francisco, in care of the Association Secretary, who is secretary ex officio of the Committee on Postgraduate Activities.

COMMITTEE ON PUBLIC HEALTH EDUCATION†

Reports of the Committee on Public Health Education and the Committee on Public Relations may well be combined this month, because the former committee has just now taken under its wing the principal subject on the latter group's docket during the past year. The transitional period has come about through the completion by the Committee on Public Relations of its work on the Basic Science Initiative; the Committee on Public Health Education will receive this measure as soon as the state Attorney-General has placed a title on it.

Plans have been well laid by the Committee on Public Health Education to institute a signature-gathering campaign as soon as printed circulars become available. The campaign will be conducted in coöperation with the Public Health League of California. Dentists, nurses, and other members of the Public Health League will be enlisted in the signature work, and professional circulators will be employed only for such technical work as is beyond the means of our own members to perform.

Expectation at this time is that the work of gathering signatures will be started shortly after the adjournment of the Assembly in Sacramento, when the Public Health League will be able to devote its full efforts to this work.

County medical societies, county Auxiliaries, and all members of the Association will be asked to take part in this campaign. With the full support of all California Medical Association members and of dentists, nurses, Auxiliary members, and others, it is hoped that the Basic Science Initiative may be brought before the voters of California at the next general election at a minimum cost to the Association.

COUNTY SOCIETIES*

CHANGES IN MEMBERSHIP

New Members (81)

Alameda County (6)

Chester F. Green, *Oakland*
Oscar L. Gregory, *Oakland*
T. Richard Hofmann, *Berkeley*
Herman H. Jensen, *Oakland*
John Charles Larkin, Jr., *Berkeley*
F. Sutro, *Oakland*

Contra Costa County (4)

Maxwell R. Bernstein, *Pittsburg*
Walter A. Johnson, *Antioch*
Joseph H. Libbey, *Antioch*
J. Austin Trolan, *Concord*

Fresno County (6)

Charles L. Cabell, *Fresno*
Edward Hirschberg, *Fresno*
Thorne Hopkins, *Fresno*
S. A. Larson, *Firebaugh*
Leland F. Studebaker, *Fresno*
H. A. Tarpinian, *Fresno*

Imperial County (4)

R. K. McLean, *El Centro*
Edward Mitchell, *Brawley*
Frederick Power-Heald, *El Centro*
Ernest Albert Zinke, Jr., *Holtville*

Los Angeles County (14)

Gustav Ahl, *Los Angeles*
Gordon B. Beckner, *Los Angeles*
Frank A. M. Bryant, *Los Angeles*
Delos Comstock, *Los Angeles*
William J. Coughlin, *Monrovia*
Gunnar S. Lindegren, *Bellflower*
Ian Macdonald, *Los Angeles*
Henry Joseph Magid, *Hollywood*
William Stewart Philip, *Los Angeles*
Agnes Scholl Ruddock, *Los Angeles*
C. Hunter Shelden, *Los Angeles*
Paul Tower, *Los Angeles*
Ernest Henry Warnock, *Glendale*
Allan B. Wilkinson, *Los Angeles*

Marin County (1)

Ernest W. Denicke, *San Rafael*

Mendocino-Lake County (3)

Jacob E. Gottleib, *Talmage*
Edward A. Macklin, *Kelseyville*
Edward Ray Miller, *Covelo*

Merced County (1)

Roy Thomas Peck, *Merced*

Monterey County (2)

C. S. Glasgow, *Salinas*
A. J. Trinkle, *Salinas*

Orange County (3)

Howard H. Drake, *Buena Park*
John P. Fraleigh, *Laguna Beach*
Francis Hamilton Redewell, *Santa Ana*

Riverside County (2)

Dulcie Blunden-Morris, *Arlington*
Byron F. Mock, *Hemet*

Sacramento County (1)

Donald J. Jones, *Sacramento*

San Bernardino County (3)

Adrian E. Clark, *Loma Linda*
Williard E. Fisher, *Loma Linda*
William J. Pennock, *Redlands*

San Diego County (4)

Francis M. Amaral, *San Diego*
H. M. Engelhorn, *San Diego*
Paul U. Hartman, *San Diego*
R. S. Russell, *San Diego*

San Francisco County (7)

John James Bazzano, *San Francisco*
Henry F. Carman, *San Francisco*
Alexander F. Fraser, *San Francisco*
Hubert A. Hathaway, *San Francisco*
Alfred Kandel, *San Francisco*
Paul J. Moses, *San Francisco*
Joseph C. Solomon, *San Francisco*

San Joaquin County (2)

Laurence L. Heston, *Stockton*
Henry Francis Quinn, *Stockton*

† The Committee on Public Health Education was established through Substitute Resolution No. 6 at the Del Monte annual session, May 3, 1939.

The Committee on Public Health Education consists of Frank R. Makinson, chairman, Oakland; Philip K. Gilman, secretary, San Francisco; Samuel Ayres, Jr., Los Angeles; Thomas A. Card, Riverside; Lowell S. Goin, Los Angeles; Junius B. Harris, Sacramento; George H. Rohrbacher, Stockton; Harry H. Wilson (ex officio), Los Angeles. Communications to the committee may be addressed to Frank R. Makinson, M. D., chairman, Wakefield Building, Oakland, or to the California Medical Association office, 450 Sutter Street, San Francisco.

* For roster of officers of component county medical societies, see page 4 in front advertising section.

San Luis Obispo County (1)

Joseph G. Middleton, *San Luis Obispo*

San Mateo County (3)

Bard S. Berry, *Redwood City*
Harry S. Berry, *Belmont*
Harry Fisher Smith, *San Mateo*

Santa Barbara County (6)

J. Gary Campbell, *Santa Barbara*
L. Gordon Fiske, *Santa Barbara*
Max Hammel, *Santa Barbara*
Clinton Hollister, *Santa Barbara*
Ernest F. Russell, *Santa Barbara*
Albert J. Swanson, *Santa Barbara*

Santa Clara County (4)

David Lee Bassett, *Menlo Park*
Gerald E. Davis, *San Jose*
Gerald Scarborough, *San Jose*
Dean Storey, *Palo Alto*

Sonoma County (1)

Emerson L. Meyer, *Healdsburg*

Stanislaus County (1)

Wayne Pickens McKee, *Modesto*

Tulare County (1)

Gilbert Furness, *Visalia*

Yolo County (1)

Malcolm N. Wilmes, *Woodland*

Transfers (14)

H. C. Barron, from San Diego County to Riverside County.

John Richard Beardsley, from Los Angeles County to San Diego County.

Yale Brody, from San Francisco County to San Joaquin County.

Edward H. Calvert, from San Diego County to Los Angeles County.

J. Roger U. Campbell, from Siskiyou County to Santa Clara County.

James O. Greemwell, Jr., from San Joaquin County to San Mateo County

Vernet H. Heinz, from San Bernardino County to San Mateo County.

Francis J. Morley, from Mendocino County to Contra Costa County.

C. C. Najjar, from San Luis Obispo County to Merced County.

Raymond Norberg, from Fresno County to Santa Clara County.

Edwin Peeke, from Placer-Nevada Sierra County to Butte-Glenn County.

Lyman Elanson Thayer, from Los Angeles County to San Bernardino County.

Hazel Nicola Woodruff, from Sonoma County to Solano County.

Roy Paul Woodruff, from Sonoma County to Solano County.

Retired (9)

Harold Dewey Barnard, Pacoima
A. B. Cecil, Los Angeles
Edgar D. Craft, Los Angeles
Joseph H. Kirkpatrick, Los Angeles
George M. Malkin, Alhambra
George M. Stevens, Los Angeles
Cecilia Reiche, Los Angeles
Harry M. Voorhees,* Los Angeles
W. E. Waddell, Los Angeles

* Deceased.

In Memoriam

Cheney, William Fitch. Died at San Francisco, April 10, 1941, age 75. Graduate of Cooper Medical School, San Francisco, 1889. Licensed in California in 1889. Doctor Cheney was a retired member of the California Medical Association, member of the San Francisco County Medical Association, and a Fellow of the American Medical Association.

✠

Tiffany, De Forrest Elmer. Died at San Jose, March 31, 1941, age 70. Graduate of the University of Iowa College of Medicine, Iowa City, 1893. Licensed in California in 1923. Doctor Tiffany was a member of the Santa Clara County Medical Society and the California Medical Association.

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OBITUARIES

William Fitch Cheney

1866–1941

On April 10, Dr. William Fitch Cheney died at his home in San Francisco at the age of seventy-five. Born in New York State, he received his B. Litt. from the University of California in 1885, and his M. D. from Cooper Medical College in 1889. After a year of postgraduate work at Johns Hopkins Medical School, Doctor Cheney took up his residence permanently in San Francisco, becoming professor of the principles and practice of medicine at Cooper Medical College, and later at Stanford Medical School, where he served as clinical professor from 1909 to 1932, and since that time as professor emeritus.

Doctor Cheney, at the age of twenty-nine, was president of the San Francisco County Medical Society. He was also a member of the American Gastro-Enterological Association, the American Therapeutic Society, and the American College of Physicians. A past president of the San Francisco Commonwealth Club, he served on the Board of Governors of this club for many years.

A regular contributor to several medical texts, Doctor Cheney was on the editorial staff of *The American Journal of Digestive Diseases*, and published many scientific articles. After his retirement from the faculty of Stanford in 1932, he continued to practice medicine with his son, Dr. Garnett Cheney, and in the later years of his life his medical interests centered chiefly in the field of gastroenterology. H. M. F. B.

✠

John Larrabee Pomeroy

1883–1941

John Larrabee Pomeroy was born in Louisville, Kentucky, December 19, 1883. He received his M. D. from the Hospital College of Medicine, Louisville, in 1903 and later from Bellevue Medical College, New York City, in 1909.

He interned in the City Hospital, New York City, 1903-1905; was resident physician at Ward's Island Hospital, New York, 1905-1907; assistant surgeon, United States Army, 1907-1909; assistant superintendent at North Brother Island Hospital, 1909-1910.

He came to California in 1910, and was resident at the Pottenger Sanatorium, having been recommended by Dr. S. A. Knopf of New York City as being a thorough student, particularly interested in tuberculosis. After serving one year as resident he engaged in private practice in Monrovia from 1911 to 1915. He became health officer of Los Angeles County in 1915, and retained that position until his death; professor of public health, College of Medical

Evangelists since 1935; captain, Medical Corps, United States Army from 1917-1919.

Doctor Pomeroy had exceptionally advanced views in matters of public health. He developed one of the best public health programs in the United States, one of the outstanding features of which was the health center which served the various communities throughout the county of Los Angeles. These were local units to which people in a certain area could go for consultation in matters of health.

He was always tuberculosis-minded, and took great interest in the antituberculosis movement.

The splendid health service which he brought to the people of Los Angeles County has been recognized by public health authorities far and wide. F. M. P.

✠

Harry Martyn Voorhees
1876–1941

Dr. Harry Voorhees was essentially a self-made man, if ever this expression can be applied. His father, a minister of the Dutch Reformed Church, and several members of the family came to California in the early nineties. Doctor Voorhees, by his own efforts, energy and character, looked after the family, was educated at Pomona College and later went through the medical school, also providing education for a younger brother.

Harry Voorhees was one of Los Angeles' very best surgeons. The loyalty of his patients and their faith in his skill was never shaken; and it was due to never-ending work that his health in later years was hardly sufficient to carry him through the semi-active period prior to his death.

Doctor Voorhees' influence in the profession, his kindly and skillful handling of his patients, his courageous character and cheerfulness, will long be remembered. P. S.

✠

Rolland Frederick Hastreiter
1875–1941

Rolland Frederick Hastreiter, member of the Los Angeles County Medical Association for the past thirty-seven years, died on March 7, 1941.

Doctor Hastreiter was born on May 11, 1875. He obtained his B. S. degree at the University of Wisconsin in 1897, and in 1901 his M. D. degree at Johns Hopkins.

He was resident house officer at Johns Hopkins Hospital from 1901 to 1902. Following that he practiced medicine at Milwaukee until 1904, when he went to Los Angeles.

There he found his interest in anesthesia and was one of the first in the United States to specialize in that branch of medicine. For a number of years, until other men saw the needs of modern anesthesia, he was called in by the profession to give, in more serious cases, anesthetics.

As a result, Doctor Hastreiter had office in many anesthetic societies and was held in high esteem by both patients and friends. R. H. J.

✠

Edgar Holm
1877–1941

Edgar Holm was born in Esbjerg, Denmark. He came to the United States during his adolescence. He was graduated in medicine at Northwestern University in Chicago. After graduation and completion of an internship, he was in the government medical service at the Roosevelt Dam. Following this he was surgeon for the Magna Copper Company in Superior, Arizona. In 1919, he took up the specialty of diseases of the eyes, ears, nose, and throat. He did his postgraduate work at the Chicago Eye and Ear Hospital, Chicago Polyclinic, and Charitable Eye and Ear Infirmary. He was house surgeon at the Charitable Eye and Ear Infirmary.

He went to Eureka in 1920, where he practiced in his specialty until his death on March 9, 1941. He was a member of the Humboldt County Medical Society, California Medical Association, American Medical Society, American Eye, Ear, Nose, and Throat Hospital Surgeons, and of Phoenix Lodge, F. and A. M. J. S. W.

THE WOMAN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION†

MRS. A. E. ANDERSON.....President
MRS. WILLIAM C. BOECK.....Chairman on Publicity
MRS. KARL O. VON HAGEN..Asst. Chairman on Publicity

Official Notice

This is the *last call* for reservations for the nineteenth annual convention of the Woman's Auxiliary to the American Medical Association which will be held at the Hotel Carter in Cleveland, June 2 to 6. All Cleveland extends a hearty welcome to you!

✦ ✦ ✦

News

A book review of "For Whom the Bell Tolls" was given by Mrs. B. W. Bours at the February 21 meeting of the Alameda County Auxiliary, held at the Claremont Country Club. Nearly three hundred attended the "husbands' dinner" on March 4.

✦ ✦ ✦

Fresno County held their April meeting at the Fresno Hotel, with forty members present. Mrs. Otto Diederich, President, announced that the May meeting will be a box supper at the home of Mrs. J. R. Walker. Each box is to be sold for 25 cents, and the money collected will be added to the fund for needy doctors. A communication from the secretary of the British War Relief, thanking the Auxiliary for their contribution, was read.

✦ ✦ ✦

Audiometers were presented to the Santa Cruz and Watsonville schools, to aid children with defective hearing, by the Santa Cruz membership.

✦ ✦ ✦

On March 11, an extremely successful health conference was sponsored by the San Diego Auxiliary in conjunction with the County Medical Society. The California Physicians' Service plan was discussed. *What to Do Until the Doctor Comes* proved a most helpful talk. *Modern Anesthesia* and a *Medical Information, Please* panel were given. A group of three doctors usually is chosen from different specialty fields. They sit informally at a table with an Auxiliary member, who asks questions of first one doctor and then another. The questions are answered in nontechnical language and as briefly as possible. The audience interest has been very marked.

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†As county auxiliaries of the Woman's Auxiliary to the California Medical Association are formed, the names of their officers should be forwarded to Mrs. Karl O. Von Hagen, Assistant Chairman on Publicity, 2435 Nottingham Avenue, Los Angeles. Address of the Chairman on Publicity: Mrs. William C. Boeck, 712 North Maple Drive, Beverly Hills.

For roster of officers of state and county auxiliaries, see advertising page 6.

Approximately 160 members and guests attended the San Francisco meeting, when presidents of women's clubs were invited to hear Chauncey D. Leake, Ph.D., Professor of Pharmacology at the University of California, speak on the *San Francisco Blood Bank*. Guests were taken to see the Medical Society's blood bank, which is installed in the home of the Society.

* * *

Miss Behrens of the Sonoma County Hospital gave an illuminating talk at the Sonoma meeting last month. Her subjects were: *The Nurse Practice Act* and the *Trained Attendant Act*. The meeting was held at Eisenhood's, in Santa Rosa.

* * *

Lloyd C. Douglas, eminent writer and lecturer, addressed one hundred and sixty-two regular members, thirty-five new members, and representatives of the press at the Los Angeles meeting. Mr. Douglas' brilliant talk on *Mental Defense* convinced his listeners that we may as well accept things as they are today, and that federation, coöperation, and the spirit of brotherhood are still enjoyed by intelligent people.

* * *

The Sacramento meeting in March consisted of a business meeting, luncheon, and bridge party.

CALIFORNIA PHYSICIANS' SERVICE†

Beneficiary Membership

September, 1939	1,220
March, 1940	9,322
September, 1940	17,398
March, 1941	24,107

* * *

Election of Administrative Members

The following were elected for three-year terms as administrative members of California Physicians' Service:

District One—Nelson J. Howard.
District Two—Hans V. Briesen.
District Three—Harry G. Ford.
District Five—Alfred L. Phillips.
District Six—J. G. Roberts.
District Seven—Leonard W. Hines.
District Eight—A. W. Warnock.
District Eleven—Axcel E. Anderson.
District Thirteen—Dewey R. Powell.
District Fourteen—Ralph Kaysen.
District Sixteen—Louis A. Packard.

* * *

During the month of January, 1,754 doctors saw 4,343 patients. The distribution of patients among doctors was as follows:

806	doctors saw	1 patient each
386	doctors saw	2 patients each
210	doctors saw	3 patients each
131	doctors saw	4 patients each
81	doctors saw	5 patients each
36	doctors saw	6 patients each
34	doctors saw	7 patients each
24	doctors saw	8 patients each
10	doctors saw	9 patients each
10	doctors saw	10 patients each

(Only twenty-six doctors saw over ten patients. The most seen by any one doctor was 22 patients.)

* * *

California Physicians' Service Rural Health Program in Coöperation with Farm Security Administration

Contracts have been signed with Farm Security Administration for the purpose of furnishing medical care to families under its charge. This program differs from the regular prepaid medical service program in several respects, all of which are based on the fact that the families concerned are actually in the very lowest income group and unable to pay in any other way for any but minimum medical service. It is expected that this plan will make it possible for doctors to receive at least some payment for their services which would not be possible without the plan. It is not to be expected that the compensation will be comparable to that paid by private patients in average circumstances, or even with that paid by California Physicians' Service for its more self-supporting groups.

The program is being inaugurated experimentally in three areas in the state: the Butte County area, Sonoma-Lake area, and the Monterey-Santa Cruz area.

1. *Socially.*—Only farm families are eligible to the California Physicians' Service and Farm Security Administration plan, and only those farm families who meet the requirements of the Farm Security Administration loan regulations. These provisions automatically allow only low-income families who are being helped by the Government to rehabilitate their farms in the hope that they will eventually become self-supporting. Protection against health needs is regarded as an essential part of the farm plan.

California Physicians' Service has been anxious to have a rural health program. The acquisition of rural members presented difficulties in cost, travel, and application of the group theory of coverage. In this experiment there is no acquisition expense—the Farm Security Association staff assembles groups, the California Physicians' Service concerns itself with professional phases only. This is an effective method of approaching low-income groups of families, and will allow development of a rural program.

2. *Method of Payment for Families.*—According to details of the farm plan (all families have a carefully worked-up budget), payment will be made in their own cash as far as possible. If total amount is not available, the Farm Security Administration may supply the difference through its loan and/or grant regulations.

3. *Administration of Funds.*—All money so secured or loaned is to be placed with California Physicians' Service as trustee. The money shall be kept in a separate account and shall be expended solely to pay the obligations of the "Rural Health Program." The same relative fee schedule now in effect (but with an ideal maximum of $1.50 per repeat office visit) will be used as a method of payment to physicians.

4. *Benefits—Inclusions and Exclusions.*—Each individual physician becomes an important part in helping to make fair judgments in all cases, so that the limited funds may be used to the best advantage, not only for the members in extent and quality of care, but also to preserve the unit value for physicians' services. The following important policies are contained in the contract:

Home Care.—Families will be urged by the Farm Security Administration staff to use this service only in obvious emergencies. As an added check on possible abuse, families have been told that they must pay $1.50 in cash directly to the doctor for the *first home call* in any illness or injury.

†Address: California Physicians' Service, 333 Pine Street, San Francisco. Telephone EXbrook 3211. A. E. Larsen, M. D., Secretary.

Copy for the California Physicians' Service department in the OFFICIAL JOURNAL is submitted by that organization.

For roster of nonprofit hospitalization associates in California, see in front advertising section on page 3, bottom left-hand column.

Chronic Conditions (for Persons Over Eighteen).—Care of *known* obvious chronic conditions is not a benefit. In obscure *new* cases necessary diagnostic work may be performed to establish a prognosis. If cure is possible, and this cure is related to the rehabilitation of the person, care may be given. This would result in (the *first instance*) (known chronic) not caring for arthritics, hypertension, cardiacs, hemorrhoids, sinus disease, asthma, varicose veins, etc. *Second instance* (obscure and new) may involve chest plates to uncover tuberculosis. If advanced, no care will be given. If minimal, the fund may be responsible.

Surgery.—For members *past* eighteenth birthday, limited to surgical services for conditions as *are proximately caused* after becoming a member. The interpretation of this clause may cause considerable difficulty. It will be administered on the basis that a cause (etiology) directly producing a result (pathology) must *not* have been in evidence before date of effective membership. This is the strict phraseology of the contract, and we might legally stand on this. However, the deputy medical director may liberalize this strict definition upon the receipt of the clinical history from attending physician.

X-ray and laboratory are included in the program. They may be used to any extent necessary to establish a diagnosis in certain obscure cases.

Hospital care (limited to ten days). California Physicians' Service is underwriting its own hospitalization. Agreements with individual hospitals have been made with California Physicians' Service.

(a) *Obstetrics.*—Hospitalization for *normal deliveries* is not covered in the fund.

Abnormal obstetrical cases may have hospitalization costs covered by the fund.

(b) *Drugs.*—This is also a new benefit not included in California Physicians' Service coverage heretofore. Physicians will be supplied with a special prescription blank to be used only in rural health program. The patient will pay the pharmacist at time drugs are dispensed. California Physicians' Service will reimburse the patient according to agreement.

The following are *not* included in the benefits of membership:

Treatment for mental disorders, drug addiction, injuries or diseases for which care is provided under any Workmen's Compensation or Employer's Liability Law.

Refractions are not included.

Laboratory tests, ordinarily provided by public health departments, should be sent to that resource (Wassermanns, parasitic studies of feces, etc.).

Materials ordinarily provided by public health departments should be secured from that resource (smallpox vaccine, diphtheria serums, scarlet fever tetanus antitoxin).

* * *

Health Program Inaugurated by Rural Families

At an enthusiastic meeting of one hundred farmers and their wives from all parts of Butte County at the Oroville high school Monday night, the by-laws of the Farmers' Health Coöperative were drawn up and adopted, according to Grinnell Burt, local representative of the Farm Security Administration. The Farm Security Administration is sponsoring this medical coöperative. The program is an experimental one in group health insurance for low income farm families of Butte County to serve as a model for the nation in providing almost complete medical, hospital and drug service to farm families. The cost will be approximately $4.30 a month for an average family of five. The California Physicians' Service has contracted to furnish the service, and each farm family chooses its own physician. A later meeting for election of officers will be held in the near future, Burt said.—Oroville *Press,* April 4.

* * *

Rural Health Program May Be Tried

Lake, Mendocino and Sonora counties have been chosen as one of the three groups to be organized in the state to try out a rural health program, whereby all farm security administration borrowers, and all other farm families eligible for Farm Security Administration loans, may receive all necessary medical, surgical and hospital services for a stipulated annual fee, governed by the number of persons in the family.

Farm Security Administration representatives working in the county held meetings in Big Valley and Bachelor Valley on March 24, and have called another meeting for April 4 at 8 o'clock at the Big Valley clubhouse.

Four Lake County doctors, members of the California Physicians' Service, are working with the Farm Security Administration representatives in an effort to get the program started.

As a trial for one year the cost of the service will range from $30 for one person to $60 for a family of nine or more with an added charge of $1.50 for the doctor's first home visit in each case of illness or injury.

Farm families interested in this rural health program should attend the meeting at the Big Valley clubhouse next Friday night and learn more about it.—Lakeport *Press-Record,* April 1.

Manual Artificial Respiration Is Said to Be the Best Method.—"When natural breathing has stopped, it is restored more effectively by manual artificial respiration than by mechanical respiration," Yandell Henderson, Ph. D., and J. McCullough Turner, Ph. B., New Haven, Connecticut, declare in *The Journal of the American Medical Association.*

They point out that the time lost in obtaining and adjusting mechanical devices may mean the difference between life and death of the victim. They advise that all policemen, firemen, seamen, miners, boy and girl scouts, college students and others be trained in the application of the manual (Schafer) method.

"Resuscitation is often thought of as if it were the restarting of a machine that has stopped," they say. "Actually, if the vital machine has fully stopped it cannot be restarted; it is not like an automobile motor to be started by 'cranking.' What resuscitation does—for example in the case of drowning—is to prevent the machine from coming to a full stop. For this purpose the essential is a renewed supply of oxygen while the body still retains some of its tonus and the heart is still beating.

"The volume of pulmonary [lung] ventilation that can be induced under any form of manual artificial respiration is . . . controlled by a physiologic principle: the same principle as that which regulates the volume of normal breathing under the influence of the blood gases acting through the respiratory center on the tonus of the respiratory muscles. The prone pressure method of Schafer produces all the pulmonary ventilation that this principle permits. In spite of claims for other manual methods, old and new, none of them can do more. The prone pressure method is the simplest to learn and the easiest to apply; it is, therefore, the best. It can be started more quickly than any mechanical device—a point of vital importance in resuscitation from drowning and electric shock.

"For resuscitation from carbon monoxide asphyxia the point of vital importance is the rapid elimination of the asphyxiant gas from the blood by means of carbon dioxide and oxygen. The results [from investigations of deeply asphyxiated dogs to determine the most effective method of administration of the resuscitant gases] show that the volume of pulmonary ventilation which can be safely induced by mechanical artificial respiration is limited by the same physiologic principle as that for manual artificial respiration, and is not more, but rather less, than under simple inhalation."

They conclude their paper with the statement that: "In brief, the best method of resuscitation from drowning and electric shock is prone pressure artificial respiration supplemented by inhalation of carbon dioxide and oxygen. The best method of resuscitation from carbon monoxide asphyxia is inhalation of carbon dioxide and oxygen, initiated in cases of severe involvement by prone pressure artificial respiration."

MISCELLANY

Under this department are ordinarily grouped: News Items; Letters; Special Articles; Twenty-Five Years Ago column; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the fifteenth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

NEWS

Coming Meetings.†

California Medical Association, Hotel Del Monte, Del Monte, California. Date of 1942 annual session not decided.

American Medical Association, Cleveland, Ohio, June 2–6, 1941.

Medical Broadcasts.*

American Medical Association Series of Radio Programs: Every Wednesday, 7:30 p. m., Pacific Time, Over Blue Network.—*Doctors at Work* is the title of the sixth annual series of dramatized radio programs to be presented by the American Medical Association and the National Broadcasting Company.

The series was opened on Wednesday, November 13, 1940, to run for thirty consecutive weeks, closing with a broadcast from the American Medical Association meeting at Cleveland on June 3, 1941. The program is scheduled for 10:30 p. m., Eastern standard time (9:30, Central; 8:30, Mountain; 7:30, Pacific time) over the Blue Network, other NBC stations, and Canadian stations.

The programs will dramatize what modern medicine offers the individual in the way of opportunities for better health and the more successful treatment of disease. Incidental to this main theme, the programs will explain the characteristics of the different fields of modern medicine and its specialties.

"Doctors at Work" will be broadcast from scripts by William J. Murphy, NBC script writer and author of many previous American Medical Association and NBC "shows" and other popular radio features. It will be produced under the direction of J. Clinton Stanley, director of "Medicine in the News," last season's successful American Medical Association and NBC health program. Supervision will be by the American Medical Association Bureau of Health Education, directed by Dr. W. W. Bauer.

These programs are broadcast on what is known in radio as a sustaining basis; that is, the time is furnished gratis by the radio network and local stations and no revenue is derived from the programs. Therefore, local stations may or may not take the programs, at their discretion, except those stations which are owned and operated by the National Broadcasting Company.

Descriptive posters for local distribution may be had gratis from the Bureau of Health Education, American Medical Association, 535 North Dearborn Street, Chicago. Program titles will be announced weekly in *The Journal of the American Medical Association* (see *J. A. M. A.* index under *Radio Broadcasts*) and monthly in *Hygeia, The Health Magazine.*

American Medical Association Broadcasts: "Medicine in the News."—The American Medical Association and the National Broadcasting Company have announced "Medicine in the News," on timely topics from medical news of the week. Thursdays, 4:30 p. m., Eastern standard time (1:30 p. m., Pacific standard time), Blue Network, coast to coast. Thirty weeks. Opened on November 2, 1939. Facts, drama, entertainment, music.

Pacific States:

KECA	Los Angeles	KEX	Portland
KFSD	San Diego	KJR	Seattle
KGO	San Francisco	KTMS	Santa Barbara
	KGA	Spokane	

* * *

Los Angeles County Medical Association.

The following is the Los Angeles County Medical Association's radio broadcast schedule for the month of May.

Saturday, May 3—KFAC, 8:45 a. m., Your Doctor and You.
Saturday, May 3—KFI, 10:15 a. m., The Road of Health.
Saturday, May 10—KFAC, 8:45 a. m., Your Doctor and You.
Saturday, May 10—KFI, 10:15 a. m., The Road of Health.
Saturday, May 17—KFAC, 8:45 a. m., Your Doctor and You.
Saturday, May 17—KFI, 10:15 a. m., The Road of Health.
Saturday, May 24—KFAC, 8:45 a. m., Your Doctor and You.
Saturday, May 24—KFI, 10:15 a. m., The Road of Health.
Saturday, May 31—KFAC, 8:45 a. m., Your Doctor and You.
Saturday, May 31—KFI, 10:15 a. m., The Road of Health.

Let Students Finish College, Says Dean Watkins.—The world will need engineers, physicians, educators, and statesmen when the war is over, and it is of the utmost importance that American college men and women be allowed to finish their studies during the present crisis.

So says Dr. Gordon S. Watkins, Dean of the College of Letters and Science on the Los Angeles campus of the University of California. He points out that while there is no definite national policy on this question at the present time, we should profit from the example of nations already at war.

"Perhaps one of the most heroic chapters in current history is being written in China, where colleges and universities with their large student bodies have migrated thousands of miles into the interior as a consequence of Japanese invasion," he said.

"The government of China is insisting that young men and women continue their college education. A similar policy has been formulated in Japan and Germany. Britain, perhaps, is suffering most from the interruption of the education of her youth, but even she is urging students of medicine and the physical and life sciences to complete their training.

"In the new world that must necessarily emerge from the present conflict, a world burdened with unprecedented problems of economic, political, and social reconstruction, the need for trained men and women will be great. Extraordinary intelligence, cultivated by higher education, will be required to guide a disorganized world into channels of constructive readjustment."

† In the front advertising section of *The Journal of the American Medical Association,* various rosters of national officers and organizations appear each week, each list being printed about every fourth week.

* County societies giving medical broadcasts are requested to send information as soon as arranged (stating station, day, date and hour, and subject) to CALIFORNIA AND WESTERN MEDICINE, 450 Sutter Street, San Francisco, for inclusion in this column.

Trichinosis Outbreaks Reported.—Three outbreaks of trichinosis in California communities were investigated during February. The most extensive occurred in Sonoma County, where seventeen cases with one death occurred, all due to eating pork from a home-raised hog, the meat being distributed to eleven families. A total of sixty-eight persons ate some of the pork—a total of seventeen, or 25 per cent, developing the disease. In Tulare County eight cases occurred from eating pork sausage. The meat came from a home-raised hog, and 26 pounds was made into link sausage on December 16, the date of slaughter. On January 15, a ham from the same animal was made into sausage. Specimens examined in the laboratory were found to be infested. The severity of the illnesses was directly proportional to the amount of raw or partially cooked sausage that was eaten. In Oakland, five cases were investigated. One was in a Japanese woman who apparently contracted the disease from eating raw pork sausage purchased in a Chinese meat market. Four cases occurred from eating dry garlic pork sausage, eaten raw or partially cooked. Diagnosis was confirmed by clinical findings and skin tests.

Population of California Counties.—For the convenience of local registrars of vital statistics, health officers and others who may make use of it, the official 1940 population of California counties is published here:

Alameda	513,011
Alpine	323
Amador	8,973
Butte	42,840
Calaveras	8,221
Colusa	9,788
Contra Costa	100,450
Del Norte	4,745
El Dorado	13,229
Fresno	178,565
Glenn	12,195
Humboldt	45,812
Imperial	59,740
Inyo	7,625
Kern	135,124
Kings	35,168
Lake	8,069
Lassen	14,479
Los Angeles	2,785,643
Madera	23,314
Marin	52,907
Mariposa	5,605
Mendocino	27,864
Merced	46,988
Modoc	8,713
Mono	2,299
Monterey	73,032
Napa	28,503
Nevada	19,283
Orange	130,760
Placer	28,108
Plumas	11,548
Riverside	105,524
Sacramento	170,333
San Benito	11,392
San Bernardino	161,108
San Diego	289,348
San Francisco	634,536
San Joaquin	134,207
San Luis Obispo	33,246
San Mateo	111,782
Santa Barbara	70,555
Santa Clara	174,949
Santa Cruz	45,057
Shasta	28,800
Sierra	3,025
Siskiyou	28,598
Solano	49,118
Sonoma	69,052
Stanislaus	74,866
Sutter	18,680
Tehama	14,316
Trinity	3,970
Tulare	107,152
Tuolumne	10,887
Ventura	69,685
Yolo	27,243
Yuba	17,034

University of California Medical Refresher Courses to Be Given June 16 to 27.—Special postgraduate courses for physicians in general practice will be offered by the University of California Medical School in San Francisco.

The courses will include clinics, demonstrations, and special studies in medicine, general surgery, orthopedic surgery, and gynecology.

Advanced enrollments indicate that approximately 125 physicians from all over California will attend the courses. Enrollments in each course are limited, and physicians wishing to attend are advised to register as soon as possible.

New Medical Service for Counties.—Increased service to every county in California is pledged by authorities of the University of California Medical School as they prepare to request an appropriation of two million dollars for the erection of a new 500-bed clinic hospital here.

The special facilities and services of the Medical School are available to private physicians and county hospitals who ask for assistance in special medical problems.

In 1930, there were 480 patients referred to the Medical School for consultation and treatment. Two years ago 1,700 physicians referred 4,154 such patients to the hospital and clinic.

The present hospital, built in 1917 by friends of the University, is now hopelessly inadequate to meet the increased demands upon it, authorities say. If it had had the space, the Medical School could have accepted two or three times as many referred clinic and hospital patients as it received in the past year. At present only the most urgent cases can be accepted, and it has even been necessary to refuse some of these because there were no beds available, it is said.—Fresno *Guide*.

Kahn's Verification Test.—Doctor Kahn of the University of Michigan at Ann Arbor, famed for his work on precipitations, especially the well-known Kahn test for syphilis, has recently published his latest work on nonspecific reactions (false positives) encountered in the serodiagnosis of syphilis.

He considers these of biologic nature, and has given us a laboratory test to differentiate these from the true syphilitic reactions.

In order to aid the physician as much as possible in determining the exact status of many of these obscure cases, diagnosed as syphilis, purely on laboratory reports, and, having no history or clinical symptoms of the disease, the Laboratory of the Los Angeles City Health Department has arranged to make these tests for any physician desiring to avail himself of this service.

Owing to certain technical difficulties in the performance of these tests, the following requirements must be met in order to render the most accurate and efficient service:

1. At least six cubic centimeters of blood must be sent in to the laboratory.

2. Before a physician releases a patient giving a negative verification test, a second or check test must be made.

3. On any doubtful reports, a third sample is requested to be sent to Doctor Kahn, who has very kindly offered his service to make a personal check-up.

4. Tests will be *run* only on Thursdays of each week, although the physicians may send specimens in on any day of the week and it will be held until the test day.

5. As complete a history as possible must be sent in with each sample and the specimen marked plainly "For Biological Kahn Test."

6. At present, and until a better name is applicable, these tests will be called the Kahn Verification Tests, and reported as positive, negative, or doubtful.

American Association on Mental Deficiency.—The American Association on Mental Deficiency, of which Dr. F. O. Butler of Sonoma State School, Eldridge, California, is chairman of the Program Committee and president-elect, will hold its sixty-fifth annual convention at Salt Lake City, Utah, June 20 to 24, 1941, with headquarters at the Hotel Utah. All indications point to a large attendance. Information concerning the program may be secured from Doctor Butler.

Pacific Coast Oto-Ophthalmological Society.—The Pacific Coast Oto-Ophthalmological Society will hold its annual meeting at the Ambassador Hotel, Los Angeles, May 26 to 29, inclusive. Guest speakers include Dr. James W. White of New York and Dr. M. H. Lurie of Boston. The scientific session will be held Monday morning, Tuesday afternoon, and Wednesday morning. There will be, also, a motion-picture session and scientific and commercial exhibits. Physicians who are not members of the Society are invited to attend the meetings and participate in the scientific activities. Further information may be secured from the secretary, Dr. C. Allen Dickey, 450 Sutter Street, San Francisco.

Directory of Medical Specialists: 1942 Edition.—Specialists eligible for listing in the forthcoming second edition of the Directory of Medical Specialists are urged to fill in and return promptly the questionnaires for biographic data now being mailed out by the publication office.

This directory is the official publication of the Advisory Board for Medical Specialties, issued every two years, and listings are limited to those formally certified by any of the fifteen American Boards examining in the medical specialties. There is no charge for such listings.

The second edition is now being prepared, and will be ready for distribution early in February, 1942, with biographic, geographic, and alphabetic listings of all diplomates certified to January 1, 1942. It will include approximately 18,000 names.

The directing editor is Paul Titus, M.D., 1015 Highland Building, Pittsburgh, Pennsylvania, and the secretaries of the fifteen American Boards constitute the Editorial Board.

Thomas Jefferson First President to Be Vaccinated.*

Thomas Jefferson was our first President to be vaccinated—the principle having been discovered then only three years before. Today if a ruler or a prominent statesman were to die of smallpox or even have the disease, it would be a scandalous occurrence. We attribute to such men intelligence and sound judgment, and since smallpox is preventable, if a man acquires the disease, it is evidence of neglect, indifference, or ignorance, qualities that we do not associate with those who are eminent.

Yet before Edward Jenner's announcement of the discovery of vaccination in 1798, the presence of smallpox was not a sign of ignorance or neglect. The disease was inevitable; men were defenseless against it. Louis XV was one of a long line of kings, queens, and princes who died of the disease.

Smallpox first reached America in 1520 when a negro slave with the disease entered Mexico with the troops of Cortez. The epidemic thus engendered, killed 3,500,000 people and exterminated whole tribes of Indians. The disease first appeared in Massachusetts in 1633, reaching Boston in 1649. Consider for a moment one of the ten or twelve outbreaks of smallpox in eighteenth-century Boston. In the epidemic of 1792 the town contained 18,000 inhabitants. Of these, somewhat more than 10,000 had already had the disease and were, consequently, immune. During the epidemic the remaining 8,000 acquired it. Statistics can never be simpler than that. But if you prefer them in larger numbers, in the eighteenth century 60,000,000 persons died of smallpox in Europe alone, 600,000 deaths a year from this one disease.

Before vaccination came into use, smallpox was a disease of childhood; the majority of cases occurred before the age of ten. The children of those days were born into a world where smallpox was almost universal. They acquired the disease in their early years and died by the millions. Nowadays, however, the situation is changed; smallpox has become a disease of adults rather than children. In most places—there are exceptions in our country—children must be vaccinated before they are admitted to school. For their true protection they should be vaccinated in their first year of life, again on entering school, and every few years thereafter.

* From: *The Lame, The Halt, and The Blind.* By Howard W. Haggard, M. D.

Atom-Smashers at University of California Report New Substances.—Three University of California scientists today added four artificial radioactive substances to those known to man, bringing the known total to about 360.

An artificial radioactive substance is one which is made to emit rays somewhat as radium does. They are made by smashing atoms in the Berkeley cyclotron. When the atom of an element is smashed, it often changes into another element, and emits rays which can be detected by the use of sensitive instruments.

Four radioactive species of germanium, an element similar to lead, were reported by the California scientists. Germanium is one of the last of the ninety-two elements to be investigated in detail for radioactive species.

More than one hundred of the known artificial radioactive substances have been discovered at the University of California, with Professor Ernest O. Lawrence's atom-smashing cyclotron.

Some of the radioactive elements have proved invaluable in medical and biological research. Radio phosphorus is being used in experiments in the treatment of leukemia, the dread disease of the blood cells.

A number of radio elements are being used to study the metabolism of the body. Sensitive instruments which react to the rays emitted enable the scientists to trace the distribution and deposition of radio elements such as phosphorus and potassium in the body.

The four radioactive germanium species were reported by Doctors Glen T. Seaborg, instructor in chemistry, J. J. Livingood, former research associate in the Radiation Laboratory, and Gerhart Friedlander, graduate student in chemistry.

Awards Made for Tuberculosis and Syphilis Control Programs.—In connection with the annual Inter-Chamber City Health Conservation Contest there are two special contests, one for the most noteworthy achievement in tuberculosis control, the other for the most effective syphilis control programs in view of the importance of these diseases in relation to national defense. These contests are conducted by the United States Chamber of Commerce in coöperation with the American Public Health Association. The Grading Committee, a group of nationally known health experts under the chairmanship of Dr. W. S. Rankin of Charlotte, North Carolina, today announced the following winners:

For the most effective tuberculosis control programs: Hartford, Conn.; Newton, Mass.

For the most effective syphilis control programs: Chicago, Ill.; Louisville, Ky.; Memphis, Tenn.; *Pasadena, Calif.*

These awards have nothing to do with the prevalence of tuberculosis or syphilis in these cities. The awards do mean that these cities have, among those participating, developed and organized their community resources and

facilities so as to reduce and control most effectively whatever tuberculosis and syphilis problems they may have.

Important questions asked and answered in these contests include: How successful is your city in finding its tuberculosis and syphilis patients early, in getting them under treatment and keeping them under treatment until well, in having contacts and possible sources examined and placed under treatment if found to be infected? Do the people of the city know how these diseases are contracted and spread, the dangers of improper or quack care, and the fact that these diseases can only be cured by continued long treatment?

How does your city stand in combating these important diseases—syphilis and tuberculosis?

National City Health Contest Winners Announced: How Was Your City's Health in 1940?—That is the question which is asked and answered in the Inter-Chamber City Health Conservation Contest conducted annually by the United States Chamber of Commerce in coöperation with the American Public Health Association. The winners of the 1940 Health Contest—cities placed on the National Health Honor Roll—are: Baltimore, Md.; Evanston, Ill.; Greenwich, Conn.; Hackensack, N. J.; Hartford, Conn.; Honolulu, Hawaii; Madison, Wis.; Memphis, Tenn.; Newton, Mass.; *Pasadena, Calif.*

This Honor Roll—an award desired by all participating cities and appreciated by those attaining it—does not mean that these cities are necessarily the healthiest cities. It does mean that they have been judged by a group of nationally known health experts (under the chairmanship of Dr. W. S. Rankin of Charlotte, North Carolina) to have provided the most effective community-wide health protection services for their people. In short, these are the cities which have organized on a community-wide basis to solve most effectively their own public health problems, such as water supply, sewage disposal, tuberculosis, syphilis, industrial hazards, maternal and child health problems, the provision of an adequate safe milk supply and many other public health essentials.

Even these cities have not finished their whole task because scientific knowledge is always ahead of its application, but they have gone farther along the road to good health, in relation to their own problems, than other participating cities.

It is interesting to observe that none of the ten cities placed on this National Health Honor Roll could have attained that distinction ten years ago.

This is the twelfth year of the City Health Contest. Altogether some 133 cities were enrolled, representing thirty-five states and the Territory of Hawaii.

Press Clippings.—Some news items from the daily press on matters related to medical practice follow:

Medical Groups Are Convicted on Antitrust Counts*

Individual Physicians Are Freed—Appeal to Higher Court Is Seen

Washington, April 5 (AP).—Conviction of the American Medical Association and the Medical Society of the District of Columbia on charges of violating the Sherman Antitrust Act appeared headed today toward supreme court review.

A federal district court jury, after twelve hours' deliberation last night, found the two medical groups guilty, but freed eighteen individual defendants.

Appeal Is Planned

It was understood the counsel for the organizations will carry the case to the District of Columbia Court of Appeals. A decision of that court would leave an appeal to the high tribunal, the last resort of the loser.

The medical societies and the individual physicians were charged by the Government with conspiracy in restraint of trade and interference with the work of the Group Health Association, a coöperative of government employees who pay a fixed fee for medical advice.

The defense contended medical practice is not a trade as defined by the Sherman Act. Justice James M. Proctor, who presided, so ruled in 1939 in holding the original indictment invalid. The court of appeals reversed, however, and the supreme court refused to review the appellate court's action.

Claimed Conspiracy

In summarizing the arguments, Justice Proctor said the Government contended the medical societies conspired to prevent the successful operation of Group Health "through threats of disciplinary action and expulsion; by denying them professional contacts and consultations with other physicians and by means of the societies' power coercing the hospitals to deny Group Health doctors facilities for treatment of their patients."

Dr. Morris Fishbein, one of the individual defendants and editor of *The Journal of the American Medical Association*, said:

"Regardless of the verdict, the A. M. A. will continue to do its utmost for the prevention and treatment of disease and the improvement of the public health."

Doctors Acquitted

Besides Doctor Fishbein, the other doctors acquitted are: William D. Cutter, Rosco G. Leland, Olin West, and William C. Woodward, officers of the American Medical Association; and Arthur C. Christie, Coursen B. Conklin, James B. G. Custis, Robert Arthur Hooe, Thomas E. Mattingly, Francis X. McGovern, Thomas E. Neill, Edward H. Reede, William M. Sprigg, William J. Stanton, John O. Warfield Jr., Prentiss Wilson, and Wallace M. Yater, all of Washington. Indictments against Dr. Leon A. Martel and Dr. Joseph R. Young, also of Washington, were quashed two weeks ago for insufficient evidence.

Dr. Thomas A. Groover died before trial. In the case of the Washington Academy of Surgery and the Harris County (Texas) Medical Society, the jury, during the course of the trial, was directed to acquit.

Sentence will be imposed next week. The convicted societies are liable to fines up to $5,000 each.—Sacramento *Bee*, April 5.

* * *

Assembly for Ban on Alien Doctors

Medical Reciprocity Measure Passes Lower House

Sacramento, April 24 (AP).—A medical reciprocity bill, which its author said virtually excludes foreign foreign physicians and surgeons from seeking a practice in California, was passed by the Assembly today, 54 to 13.

Introduced by Assemblyman Roger Pfaff of Los Angeles, the proposed act provides that no physician or surgeon shall be licensed to practice medicine in California if American physicians are excluded from practice in the country of his citizenship. Pfaff pointed out that a reciprocity agreement now is in effect between the United States and Germany.

Assemblyman Albert Wollenberg of San Francisco opposed the bill in its original form and was successful in obtaining reconsideration. On his insistence, the author added amendments which will exempt those now serving internship.—San Francisco *Examiner*, April 25.

* * *

Medical Association Blames Seventeen Deaths on Poisoned Pills

Warning Repeated to Physicians and Druggists to Check Stocks Against Contaminated Bottles

Chicago, April 7 (UP).—The American Medical Association disclosed tonight that seventeen deaths in eight States "may have resulted" from sulphathiazole pills contaminated with phenobarbital, a powerful sedative.

The American Medical Association repeated its warning of a week ago to physicians and druggists for a thorough check of their stocks to prevent further distribution of the poisoned pills.

The official American Medical Association journal said reports of illness or death from the contaminated tablets "continue to accumulate." The *Journal* said analyses of the death causes in cases of severe pneumonia and infection "are very difficult," and frequently the disease itself is the sole cause.

The American Medical Association said the Winthrop Chemical Company, New York, had succeeded in recalling many bottles of the poisoned pills, mistakenly shipped in December, 1940.

Deaths from the tablets were reported at Allentown, Norristown, Palmerton, Philadelphia and Clear Field, Pennsylvania; Lincoln, Nebraska; Farmington, Missouri; Worcester, Massachusetts; Louisville, Kentucky; New Orleans, Louisiana; Edenton, North Carolina; and Tyler, Texas.—Los Angeles *Times*, April 8.

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* For editorial comment, see page 255.

Find One Thousand of Poisoned Pills in Sacramento

Sacramento (AP).—Milton P. Duffy, chief of the State Bureau of Food and Drug Inspection, State Department of Public Health, said today he found here one thousand of the contaminated pneumonia medicinal tablets of a December code, MP076, for which a thorough search has been made throughout the country.

An additional ninety tablets were found in Stockton, and all were seized by John L. Harvey of San Francisco, chief western inspector for the United States Bureau of Foods and Drugs.

The American Medical Association disclosed Saturday that phenobarbital, a powerful sedative drug, was used inadvertently in the manufacture of the tablets which a New York firm issued as sulphathiazole.—Vallejo *News*, April 1.

* * *

Dental Association Opens Convention

The seventy-first annual convention of the California State Dental Association opened today at the Fairmont Hotel, with more than 1,800 dentists in attendance. Sessions will last through Wednesday.

The program, arranged by Dr. Ernest L. Johnson, program chairman, includes lectures, clinics and motion pictures of latest dental technique.

Speakers today included Dr. Morris Fishbein, editor of *The Journal of the American Medical Association*; Dr. John Seybold of Denver and Dr. Wilfred Hall Terrell of Pasadena.

The annual president's dinner is scheduled for tomorrow night and installation of new officers will be held Wednesday.—San Francisco *News*, April 21.

* * *

New Developments in Dental Science Told

Latest developments in the field of dental research were revealed here yesterday at the annual convention of the California State Dental Association at the Fairmont Hotel.

Dental fillings made out of a synthetic plastic material which can be colored to match the natural appearance of teeth were shown to more than 1,500 dentists attending the convention.

The new plastic material, hailed as a probable substitute for gold inlays, metallic fillings and bridgework, is acrylic resin, a substance derived from coal. . . .

Vitamin Talk

Dr. Morris Fishbein, American Medical Association spokesman, told a general meeting of dentists that after ten years of intensive research, scientists were just beginning to know something about vitamins.

Criticizing the indiscriminate use of vitamin pills and tablets, Doctor Fishbein declared that "It is about all scientists can do today to halt certain exploiters of misinformation from selling vitamins to the public before enough is known about them."

He said the public had been badly misled regarding the "cure all" effects of vitamins and advocated a closer study of their composition and use by doctors and dentists.

Highlight of today's session will be a speech by Colonel Robert H. Mills of the Army Dental Corps, who will speak on "Dentistry's Part in the National Defense Program."

The convention will close this afternoon following a general business meeting.—San Francisco *Examiner*, April 23.

* * *

Cancer Control Society to Conduct Educational Campaign During April

Once again the Woman's Field Army of the American Society for the Control of Cancer is going ahead with its educational campaign during the month of April, which has been proclaimed Cancer Control Month by President Roosevelt.

The work of the Field Army is to reduce cancer mortality through education, stressing the fact that early cancer is curable and that we should fight cancer with knowledge. Such an educational program seeks to provide men, women, and children with the best scientific information concerning cancer. This is undertaken through literature, radio broadcasts, speeches, exhibits, and personal contacts. . . . —Vallejo *News*, April 1.

* * *

Increased Medical Service Pledged for Counties

San Francisco—Increased service to every county in California was pledged recently by authorities of the University of California Medical School as they requested an appropriation of two million dollars for the erection of a new 500-bed clinic hospital here.

The special facilities and services of the Medical School are available to private physicians and county hospitals who ask for assistance in special medical problems.

In 1930, there were 480 patients referred to the Medical School for consultation and treatment. Two years ago, 1,700 physicians referred 4,154 such patients to the hospital and clinic.

The present hospital, built in 1917 by friends of the University, is now hopelessly inadequate to meet the increased demands upon it, authorities say. If it had the space, the Medical School could have accepted two or three times as many referred clinic and hospital patients as it received in the past year. At present, only the most urgent cases can be accepted, and it has even been necessary to refuse some of these because there were no beds available, it is said.

The Medical School now has a combination of cancer-fighting weapons available nowhere else in the world, many of these developed at the University. However, the full benefit of the new developments and of other important discoveries and methods of treatment cannot be widely applied because of lack of space. With the new hospital, the Medical School would become one of the leading American centers for cancer treatment and research, authorities said.

Although the new hospital would be very nearly self-supporting from the revenues of those able to afford hospital care, it would still be possible for hundreds unable to pay to receive free treatment.—Sacramento *Daily Recorder*, April 9.

* * *

"Goat Gland" Brinkley Bankrupt

John R. Brinkley, the transplanted Kansas "goat gland" specialist on the Mexican border, recently was on record as a bankrupt.

He listed obligations "in excess" of his $30,000 assets in a voluntary petition accepted by R. O. Huff, referee in bankruptcy.

The creditors will meet next week in Del Rio, across from which, at Villa Acuna, Mexico, is XER, the super radio station which advertised Brinkley's hospitals at Del Rio and Little Rock, Arkansas.

Brinkley's fabulous career included politics and radio selling that were unique in his heyday. Twice, in 1930 and in 1932, he ran for governor of Kansas and each time almost was elected. He talked about running for the senate.

From his first so-called goat gland operation in 1917, Brinkley built up a $30,000 a week operations business at his Milford, Kansas, hospital.

With his radio station KFKB there he urged hundreds of aged to seek treatment. Kansas deprived him of his license to practice medicine and his treatment was heavily attacked.

But he claimed he was being "persecuted," and called for more votes and patients.

He sued the Kansas City *Star* for $5,000,000 libel but failed to collect. The Amarillo *News-Globe* and the American Medical Association were parties to his suit.

When the federal communication commission revoked his radio license he established XER at 100,000 watts, stepping it up in 1931 to a reported 500,000 watts.—Los Angeles *News*.

* * *

Wise Spending to Build New University of California Clinic Hospital

There is no appropriation before the state legislature that deserves more careful and sympathetic attention than the request for money to build a new clinic hospital at the University of California Medical School.

The need for additional facilities to provide specialized hospital service for all northern California is pressing and immediate.

The present University of California Hospital has become utterly inadequate, both for a medical school and as a hospital. Unless a new hospital is built, the whole medical school will be strangled for lack of space and must gradually fall from its present high rank to an inferior status. The medical school is simply bursting out of its walls and must expand or fall.

But that is only a part of the story. Clinic patients are sent to the University of California Hospital from every county in northern California. These patients all require treatment which cannot be given in their home counties, because it is impossible to maintain, at more than one point, the specialized service and highly expensive equipment required for this treatment. For example, and only as one example among many, the University of California Hospital has a million volt x-ray machine.

The present hospital was built by private donations. The state contributes a comparatively small amount annually to its upkeep. The new hospital will be self-supporting from the small fees collected from those able to pay a part of the usual hospital costs, though hundreds, unable to pay, will get free treatment.

The legislature is asked for nothing except the money to build and equip the hospital building.

It would be unwise economy and bad politics on the part of the economy bloc to kill this project on the general grounds that the legislature must refuse any and all requests for capital outlays.

The rejection of this extremely necessary clinic hospital would put a strong weapon into the hands of the economy bloc's enemies. It would permit them to say: "Here are men, women and children dying in the poorer counties because the legislature was too parsimonious to give them a fighting chance for life."

The *Examiner* believes that the legislature will see the wisdom of providing some capital expenditures and, among all of those proposed, none is worthier than this.—Editorial, San Francisco *Examiner*, March 28.

LETTERS†

Concerning Meeting of American Prison Association.

MEDICAL DEPARTMENT
CALIFORNIA STATE PRISON
AT SAN QUENTIN

April 26, 1941.

To the Editor:—Enclosed you will please find a letter from James A. Johnston, Warden of Alcatraz and President of the American Prison Association.

Warden Johnston has asked me to assist in bringing this meeting to the attention of the doctors. . . .

Yours very truly,
LEO L. STANLEY,
Chief Surgeon.

* * *

(COPY)

THE AMERICAN PRISON ASSOCIATION

Alcatraz, California,
April 24, 1941.

Dr. L. L. Stanley, Chief Surgeon
California State Prison
San Quentin, California

Dear Doctor:

Thank you very much for your letter of April 23, 1941, advising me about the California State Medical Society meeting at Del Monte, May 4-6. Your offer to put up a notice inviting the doctors to attend the American Prison Association Congress at the Fairmont Hotel, August 18-22, 1941, is very agreeable to me and I assure you that your thoughtfulness in that respect is very much appreciated.

If you deem it desirable, you may read this letter in which, in my capacity as president of the American Prison Association, I extend an invitation to all the members of the California State Medical Association to attend the sessions of the American Prison Association Congress at the Fairmont Hotel, San Francisco, August 18-22, 1941.

For the further information of your associates, may I say that the American Prison Association was organized in 1870. Its purpose is to study, develop, and constantly improve the methods for control of crime and correction of offenders. Within the membership of the organization are wardens of prisons, superintendents of reformatories, heads of juvenile agencies, medical officers of the institutions, psychiatrists, psychologists, educators, members of the judiciary, ministers, priests, social workers in or bordering on the fields of delinquency.

During the Congress there are general sessions and special sessions and discussion group meetings. The program for one day will be under the sponsorship and direction of physicians dealing generally with matters of health.

I really believe that many of the discussions would be interesting to members of the California State Medical Association and I cordially invite them to attend.

Sincerely,
JAMES A. JOHNSTON,
President.

Concerning Physicians' Samples.

To the Editor:—We have been asked by a number of advertisers to help discourage a movement to collect physicians' samples for British Relief.

By publishing the following news item you can ingratiate your JOURNAL with these important advertisers.

Very truly yours,
COÖPERATIVE MEDICAL ADVERTISING BUREAU.
H. L. Sandberg, Director.

* * *

As much as we individually might be in sympathy with the "Bundles for Britain" movement, one recent phase of it hardly has our approval.

At several points in the country there has been a movement to collect the samples left by pharmaceutical detail men in physicians' offices and include them in the shipments for British Relief. This is an expensive and uncontrolled way of supplying pharmaceutical products.

Most all of the pharmaceutical manufacturers have individually donated supplies with vitamin capsules and other needed pharmaceutical products to the British Relief at no charge.

The packaging of a sample increases the cost and if these samples are collected and sent to Britain, then the purpose for which they were intended, that is, for the use of physicians, is not accomplished, and the heterogenous material that reaches British Relief probably would have little value. Many samples left physicians would be dangerous if used indiscriminately without the advice of a physician.

In some cases individual city and county medical societies have been asked to coöperate with the collection of these samples. It is our opinion that such coöperation should be refused for the obvious reasons stated.

H. L. S.

MEDICAL JURISPRUDENCE†

By HARTLEY F. PEART, ESQ.
San Francisco

Vasectomy and Salpingectomy Under California Law

PART I*

In recent years there has been considerable discussion pro and con, with respect to sterilization of humans. Sterilization involves social, economic, and legal problems with all of which physicians are vitally concerned. In this article we shall limit ourselves to a discussion of the legal aspects of sterilization, particularly emphasizing the duty and privileges of physicians.

It must be understood that we are not approaching the problem of human sterilization from a social point of view; that is to say, we are neither advocating sterilization nor opposing it; we are neither endeavoring to point out how it can be done with legal safety, nor are we endeavoring to discourage sterilization operations by erecting or magnifying legal obstacles. On the contrary, we shall merely endeavor to analyze those rules of law which, in our opinion, are applicable and that govern physicians who

† CALIFORNIA AND WESTERN MEDICINE does not hold itself responsible for views expressed in articles or letters when signed by the author.

† Editor's Note.—This department of CALIFORNIA AND WESTERN MEDICINE, presenting copy submitted by Hartley F. Peart, Esq., will contain excerpts from and syllabi of recent decisions and analyses of legal points and procedures of interest to the profession.

* Part II will appear in next month's issue.

undertake to determine whether or not a particular person should be sterilized.

Any discussion of the legal status of sterilization must be divided into: first, compulsory sterilization by state agencies; and, second, voluntary sterilization by private physicians. In turn, the second division should be subdivided into: first, the criminal law as applied to sterilization; and, second, the civil liability, if any, arising out of sterilization.

I. Compulsory Sterilization by the State

Status of Compulsory Sterilization.—California has become the leading state in development and application of the policy of sterilizing unfit persons. Of some eight or nine thousand compulsory sterilizations performed in this country up to 1938, approximately six thousand occurred in this state. These numbers have without doubt increased several thousand since 1938.

The California statutes under which these sterilizations have been performed are:

Section 6624 of the Welfare and Institutions Code, which provides:

> The provisions of this section apply to any person who has been lawfully committed to any state hospital, and who is afflicted with, or suffers from, any of the following conditions:
>
> (*a*) Mental disease which may have been inherited and is likely to be transmitted to descendants.
>
> (*b*) Feeble-mindedness, in any of its various grades.
>
> (*c*) Perversion or marked departures from normal mentality.
>
> (*d*) Disease of a syphilitic nature.
>
> Before any such person is released or discharged from a state hospital, the State Department of Institutions may, in its discretion, cause such person to be sterilized. Such sterilization, whether performed with or without the consent of the patient, shall be lawful and shall not render the department, its officers or employees, or any person participating in the operation liable either civilly or criminally.

and Penal Code, Section 645, which states that:

> Whenever any person shall be adjudged guilty of carnal abuse of a female person under the age of ten years, the Court may, in addition to such other punishment or confinement as may be imposed, direct an operation to be performed upon such person for the prevention of procreation.

and Deering's General Laws, Act 539, which provides that whenever the resident physician of the state prison deems it to be beneficial to the physical, mental, or moral condition of any recidivist lawfully confined in such prison to be asexualized, such physician shall consult with the general superintendent of state hospitals, and the secretary of the State Board of Health, and after a joint examination into the particulars of the case the three may direct the operation to be performed. However, such operation cannot be performed unless the recidivist has been committed to a state prison at least twice for rape, seduction, etc., and has given evidence that he is a moral and sexual degenerate. The Act also provides that any minor idiot may be asexualized under the direction of the medical superintendent of any state hospital with the written consent of the parents or guardian.

Nineteen states have some statutory regulation of sterilization. The objective of eleven of these is both eugenic and therapeutic, of six purely eugenic, and of two eugenic, therapeutic and penal. Seven statutes provide both for voluntary and compulsory sterilization, seven for compulsory sterilization only, and five for voluntary sterilization only. Three-fourths of the operations throughout the country have been on the insane, one-fourth on the feeble-minded; and of the total, more than one-half have been on males.

With respect to those persons who are within the foregoing statutes (*i. e.*, feeble-minded, perverted or syphilitic persons, recidivists, rapists, and persons with inherited mental diseases), sterilization by a state agency is lawful.

II. Sterilization Outside of State Institutions

Therapeutic Sterilization.—In California there is no statute expressly granting or denying the right to perform or have performed a sterilization operation outside of state institutions. However, it would seem reasonable to conclude that, at least in so far as therapeutic sterilization is concerned, it can be performed legally under some conditions even in the absence of express permission of law. The scope of those conditions can only be ascertained or surmised by drawing analogies to similar laws. It is quite likely that the rules relating to abortions would govern since the avowed purpose to be accomplished is similar even though there is no "taking of a life" in sterilization operations. In relation to abortion, the Penal Code of California, Section 274, provides:

> Every persons who provides, supplies, or administers to any woman, or procures any woman to take any medicine, drug or substance, or uses or employs any instrument or other means whatever with intent thereby to procure the miscarriage of such woman, *unless the same is necessary to preserve her life*, is punishable by imprisonment in the state prison not less than two nor more than five years.

In abortion cases it is necessary that the physician determine for himself that the patient's life will be endangered by pregnancy. There are no guide-posts to assist the physician in this determination and, therefore, as a protection to himself, consultation and approval of one or more other physicians should be obtained. Whenever this care has been taken, the physician may feel fairly certain as to his immunity. There is no case on record in which a physician has been held responsible criminally or civilly under such circumstances. As to the exact illness or condition that must be present, no suggestion can be offered, except that any physical condition which would endanger the mother's chances of surviving childbirth is undoubtedly sufficient ground for the operation. In the light of this, it can be said that sterilization of the female may properly be performed under like circumstances.

As to the male, the situation is more difficult. In *Christensen* vs. *Thornby*, 255 N. W. 620, Minn. 1934, the facts were as follows: A vasectomy had been performed upon a male because his wife's life would have been endangered by pregnancy. Thereafter, the physician was sued for damages on the ground that he had advised the plaintiff that the vasectomy had been successful and guaranteed sterility. Some time following the operation, however, the plaintiff's wife became pregnant and plaintiff, because of his wife's condition of health which would render childbirth dangerous, experienced anxiety and was subjected to considerable expense before and after the birth of the child. The Court, in rendering a decision in favor of the defendant physician, stated that there was nothing immoral about such an operation since most states permit the same upon the female to protect her life, and that there is no reason why the husband should not be permitted to submit to a vasectomy to protect his wife since there is much less danger involved in that operation than in a salpingectomy. The Court stated that the argument that the husband might later marry some other woman and be incapable of progeny is not sufficient to render the operation immoral. The Court stated:

> Therefore, in our opinion, it was entirely justifiable for them to take the simpler and less dangerous alternative and have the husband sterilized. Such an operation does not impair, but frequently improves, the health and vigor of the patient. Except for his inability to have children, he is in every respect as capable physically and mentally as before. It does not render the patient impotent or unable "to fight for the king" as was the case in mayhem or maiming. Liability of Physicians for Sterilization Operations, Am. Bar Assn. Jour., Vol. 16 (1930), p. 158. See *Smith* vs. *Wayne Probate Judge*, 231 Mich. 409, 417, 204 N. W. 140, 142, 143. We, therefore, hold that under the circumstances of this case the contract to perform sterilization was not void as against public policy, nor was the performance of the operation illegal on that account.

(To be continued)

TWENTY-FIVE YEARS AGO†

EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. XIV, No. 5, May, 1916

From Some Editorial Notes:

The Fresno Meeting.—The forty-fifth annual session of the Medical Society of the State of California, held at Fresno, April 18, 19 and 20, 1916, was a very distinct success. About 325 registered; and even though this is the busiest time of year for the hotels in Fresno, and there was some little trouble in getting all those in attendance properly cared for, still this was done with the assistance of the local committee and everybody seemed pleased. The thanks of the profession are certainly due to the members of the local Committee of Arrangements, all the members of which worked overtime to help things along.

As it is so late in the month when the meeting closes, and as there are so many important reports to prepare, it is not possible to publish in this issue of the JOURNAL the full minutes of the session.

The election resulted as follows:

Dr. George H. Kress, Los Angeles, president.

Dr. L. R. Wilson, Fresno, first vice-president.

Dr. John C. Yates, San Diego, second vice-president.

Dr. Philip Mills Jones, San Francisco, secretary.

All of the outgoing councilors were reëlected with the exception of Doctor Kress, and in his place Dr. Clarence Moore of Los Angeles was elected councilor.

The place of meeting for the session of next year was made San Diego (Coronado).

A great deal of very important business was transacted, and the attention of every member is earnestly requested for the consideration of these matters when they appear in the next number of the JOURNAL.

* * *

Take Warning! Health Insurance.— . . . Industrial accident insurance has in a great measure replaced the old schemes of employers' liability. Physicians in this State well remember how they at first objected to the medical features of the plan, and how ineffective their resistance proved. And even now, as we write, we see one county society declaring that "no fee bill for industrial accident insurance work be accepted again by the State Medical Society." But as in the past, no better scheme is proposed. *La critique est aisée, l'art est difficile. . . .*

. . . "Sickness" or rather "health insurance" is in the air. The magazines are discussing it. Social workers are investigating it. Commissions are being appointed for its study. Before we know it, it will be upon us. How are we to face it?

It is true that the success of sickness insurance depends largely upon the successful organization of medical aid. But if the profession has no views, no plan to suggest, insurance companies and commissions will have, and it is in order to arouse interest in these live issues that we reproduce an editorial which appeared in the *New York State Journal of Medicine* of February, 1916, apropos of a Health Insurance bill introduced in their legislature.

* * *

Records.—Once more we refer to the very important subject of records. This time it is brought forcibly to mind

(Continued in Front Advertising Section, Page 16)

† This column strives to mirror the work and aims of colleagues who bore the brunt of Association activities some twenty-five years ago. It is hoped that such presentation will be of interest to both old and new members.

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA†

By CHARLES B. PINKHAM,
Secretary-Treasurer

News

"Governor Culbert L. Olson today announced the appointment of Dr. Frederick N. Scatena of Sacramento as a member of the State Board of Medical Examiners, succeeding Dr. C. E. Schoff, also of Sacramento, whose term had expired. Doctor Scatena, whose residence is 1435 Forty-fifth Street, was appointed to a term ending on January 15, 1945." (Sacramento *Bee*, March 3, 1941.)

Charles B. Pinkham, Secretary-Treasurer of the Board of Medical Examiners of the State of California, reports results of the written examination held in Los Angeles on February 25 to 27, inclusive, 1941. The examination for physicians and surgeons covered nine subjects and included ninety questions. An average of 75 per cent is required to pass. Seventy-four applicants wrote the examination. Included in the applicants were several graduates of foreign medical schools.

The highest mark for physicians and surgeons (88 1/9 per cent) was made by Charles Henry Cutler, 2323 Lake Street, San Francisco, a graduate of the University of Southern California School of Medicine, June 4, 1938.

The following is a list of successful applicants:

Harry Saul Altwerger, Los Angeles, University of Toronto Faculty of Medicine, Canada.

Maxwell "M." Andler, Jr., Los Angeles, University of Southern California School of Medicine.

Vittorio G. Arcadi, Los Angeles, Johns Hopkins University School of Medicine.

George Babbin, San Diego, University of Michigan Medical School.

Robert George Bachhuber, Los Angeles, University of Wisconsin Medical School.

Joseph Beber, Los Angeles, University of Toronto Faculty of Medicine, Canada.

Vernon Purva Brickey, San Bernardino, University of Kansas School of Medicine.

Ridgway Hulin Brothers, Berkeley, Northwestern University Medical School, Illinois.

Ferris Cyril Burleson, Fresno, State University of Iowa, College of Medicine.

Ralph Louis Buron, Jr., Los Angeles, University of California Medical School.

Charles Edwin Carmack, Los Angeles, Baylor University College of Medicine, Texas.

Wayne Metcalf Caygill, Los Angeles, University of Wisconsin Medical School.

Kenneth Joseph Cosgrove, San Francisco, Creighton University School of Medicine, Nebraska.

Mary Elizabeth Costello, San Francisco, Creighton University School of Medicine, Nebraska.

Charles Henry Cutler, San Francisco, University of Southern California School of Medicine.

James Lowden Dennis, Oakland, University of Oklahoma School of Medicine.

Siegfried Fischer, San Francisco, Friedrich Wilhelm University of Breslau, Silesia, Germany.

Edgar Freuder, Berkeley, University of Vienna Faculty of Medicine, Austria.

Bernard Berlin Gadwood, Los Angeles, University of Kansas School of Medicine.

Clara Gans, San Francisco, University of Groningen, Faculty of Medicine, Holland.

Andrew Bennatt Goddard, San Francisco, Baylor University College of Medicine.

Alan Winchester Gray, San Francisco, McGill University Faculty of Medicine, Canada.

Roy Bartlett Hammond, Oakland, George Washington University School of Medicine, Washington, D. C.

Thomas Edward Hanigan, Oakland, University of Colorado School of Medicine.

Wayne Pierre Hanson, Los Angeles, Jefferson Medical College of Philadelphia, Pennsylvania.

(Continued in Front Advertising Section, Page 26)

† The office addresses of the California State Board of Medical Examiners are printed in the roster on advertising page 6.